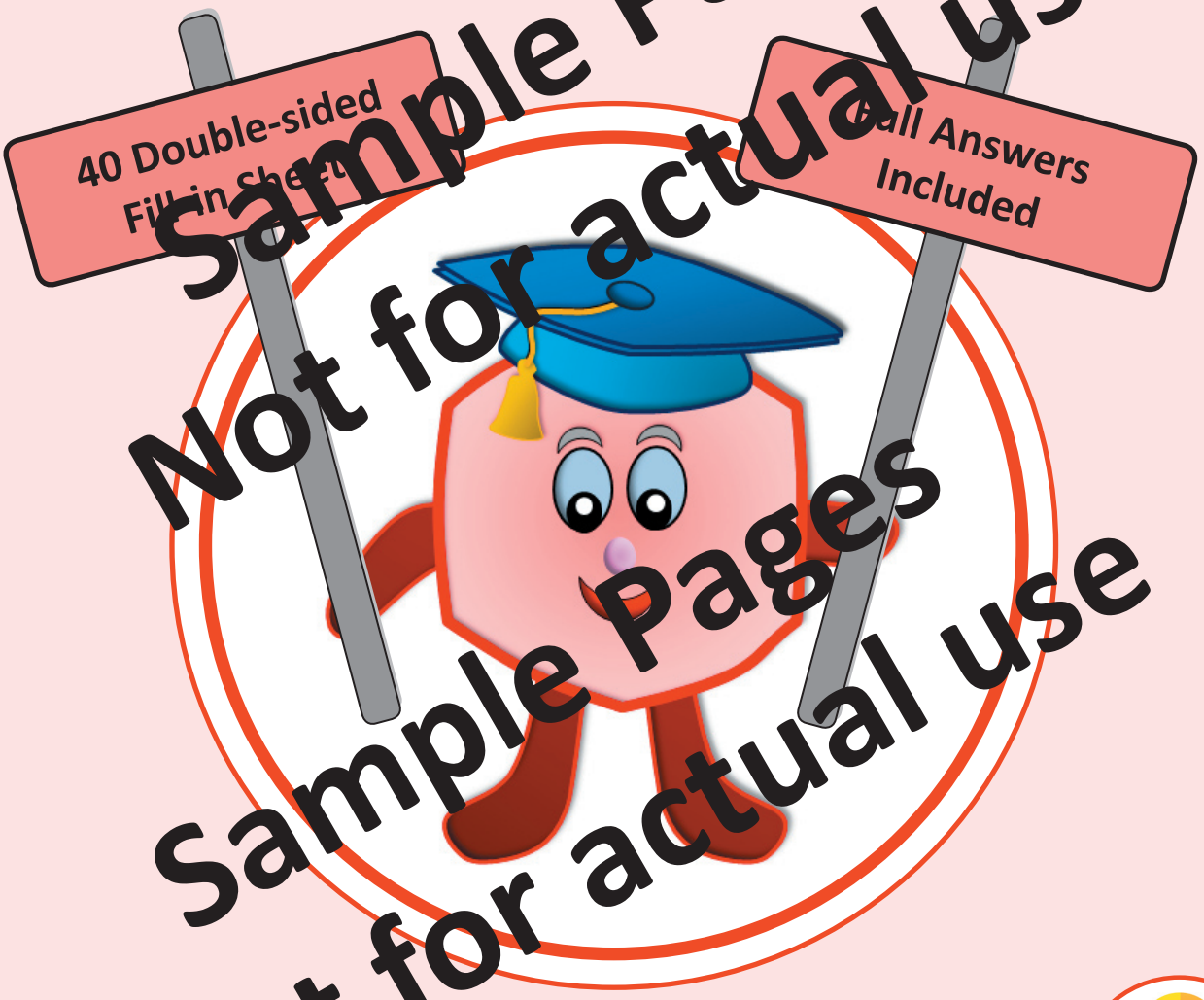
Maths Topics

Homework Sheets

for Year 6

by

Brian Taylor



2021 Edition

Introduction

Welcome to the **Maths Topics Homework Sheets for Year 6** PDF book, a resource designed to cover your entire maths homework requirement for Year 6.

This practical learning tool includes 40 double-sided homework sheets, covering topics on the Year 6 National Curriculum. We recommend one homework sheet to be set each week, with any remaining sheets to be set as holiday homework.

As the year progresses, pupils could put their completed sheets into a homework file or folder, hence providing a full homework record for every pupil in your Year 6 class.

Alternatively, the PDF book could be printed out and stapled or ring-bound to make a complete book for each pupil.

The sheets can be tackled in any order depending upon your own scheme of work for Year 6. They appear in this book broadly in the order in which the topics are listed in the National Curriculum.

Answers are also provided in the form of fully filled-in sheets. This should make marking easy and also allows for the relevant page to be projected onto a screen in your classroom to allow for peer marking.

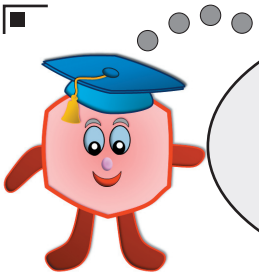
We hope that your pupils enjoy and benefit from the material in this book.

Details of our other fantastic mathematics resources can be found on our website:

www.mentalmathstest.co.uk

Topic Contents

Answer sheets follow the question sheets.



Maths Homework this week is about:

Numbers and Digit Values

Name:

Date:

Teacher:

Year 6

(1) Fill in the missing boxes in this table.

	Number in Digits	Number in Words
(a)	948	
(b)		Three thousand, one hundred and twenty six
(c)	5 092	
(d)		Sixteen thousand, four hundred and eighty seven
(e)	10 305	
(f)		One hundred and twenty six thousand, four hundred and twenty nine
(g)	792 043	
(h)		Six million, eight hundred and twenty four thousand, three hundred and fifty six
(i)	4 100 038	
(j)		One million, two hundred and ten thousand and forty

(2) (a) Put these numbers in order, starting with the lowest.

7 010	28 956	1 486	27 272	3 914

(b) Put these numbers in order, starting with the highest.

11 026	28 534	30 106	9 487	12 009

(3) Circle the largest number in each box.

(a)

89 463	80 009
24 631	72 18[illegible]
9 746	16 4[illegible]8

(b)

260 497	263 999
264 387	39 465
128 437	90 909

(c)

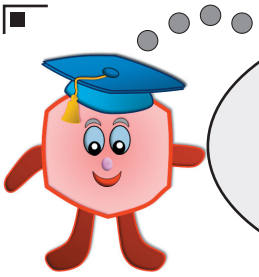
98 463	806 438
809 899	384 627
725 476	819 364

(4) Give, in words, the value of the underlined digit in each number below.

	Number	Value of Underlined Digit
eg:	638 497	Four hundred
(a)	2 738	
(b)	56 921	
(c)	308 178	
(d)	395 206	
(e)	902 146	
(f)	262 049	
(g)	528 163	
(h)	1 740 395	
(i)	6 284 127	
(j)	9 035 268	

(5) Put the correct symbol (<, > or =) into each box.

(a)	86 523		9 896
(b)	38 286		30 945
(c)	62 748		316 284
(d)	102 040		30 204
(e)	95 627		96 527
(f)	1 074 623		1 074 623
(g)	3 864 251		764 251
(h)	1 204 627		1 240 627
(i)	6 972 003		6 970 203
(j)	4 639 526		6 439 526



Maths Homework this week is about:

Rounding Numbers

Name:

Date:

Teacher:

Year 6

(1) The distances, in miles, on these signposts have been given too accurately.
Round each distance to the nearest mile.

(a)	Adderley	56.34		Adderley
(b)	Fractionham	84.63		Fractionham
(c)	Squaretown	124.54		Squaretown
(d)	Graphdon	137.61		Graphdon
(e)	Dividingtry	209.48		Dividingtry

(2) Circle the closest number to each number in the box.

(a)	38	37.5	38.12	37.49	37.99	38.04
(b)	4.6	4.7	4.69	4.61	4.55	4.05
(c)	127	127.05	126.85	127.45	127.5	126.9
(d)	19.3	19.25	19.35	19.49	19.39	19.4
(e)	0.7	0.07	0.77	0.06	0.68	0.72

(3) Round each of these numbers to the nearest 100.

(a)	565	=		to the nearest 100
(b)	1 067	=		to the nearest 100
(c)	2 613	=		to the nearest 100
(d)	5 284	=		to the nearest 100
(e)	3 476	=		to the nearest 100

(4) Round 73 528

(a) to the nearest 10

(b) to the nearest 100

(c) to the nearest 1 000

(5) Round 68 459

(a) to the nearest 10

(b) to the nearest 100

(c) to the nearest 1 000

(6) Round each of these numbers to the nearest whole number.

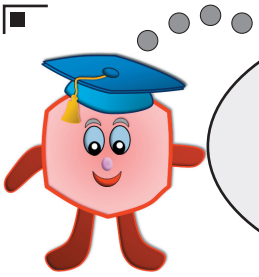
	Number	Nearest whole number
(a)	6.05	
(b)	8.66	
(c)	3.49	
(d)	5.84	
(e)	9.38	
(f)	9.72	
(g)	12.48	
(h)	18.61	
(i)	24.3	
(j)	125.39	

(7) Round each of these numbers to one decimal place

	Number	to one decimal place		Number	to one decimal place
(a)	18.73		(b)	10.85	
(c)	13.68		(d)	293.38	
(e)	27.[illegible]		(f)	643.24	

(8) Sam said that there were 30 sweets in a bag to the nearest 10.
Give the smallest and largest number of sweets which could have been in the bag.

Smallest: _____ **Largest:** _____



Maths Homework this week is about:

Negative Numbers and Number Patterns

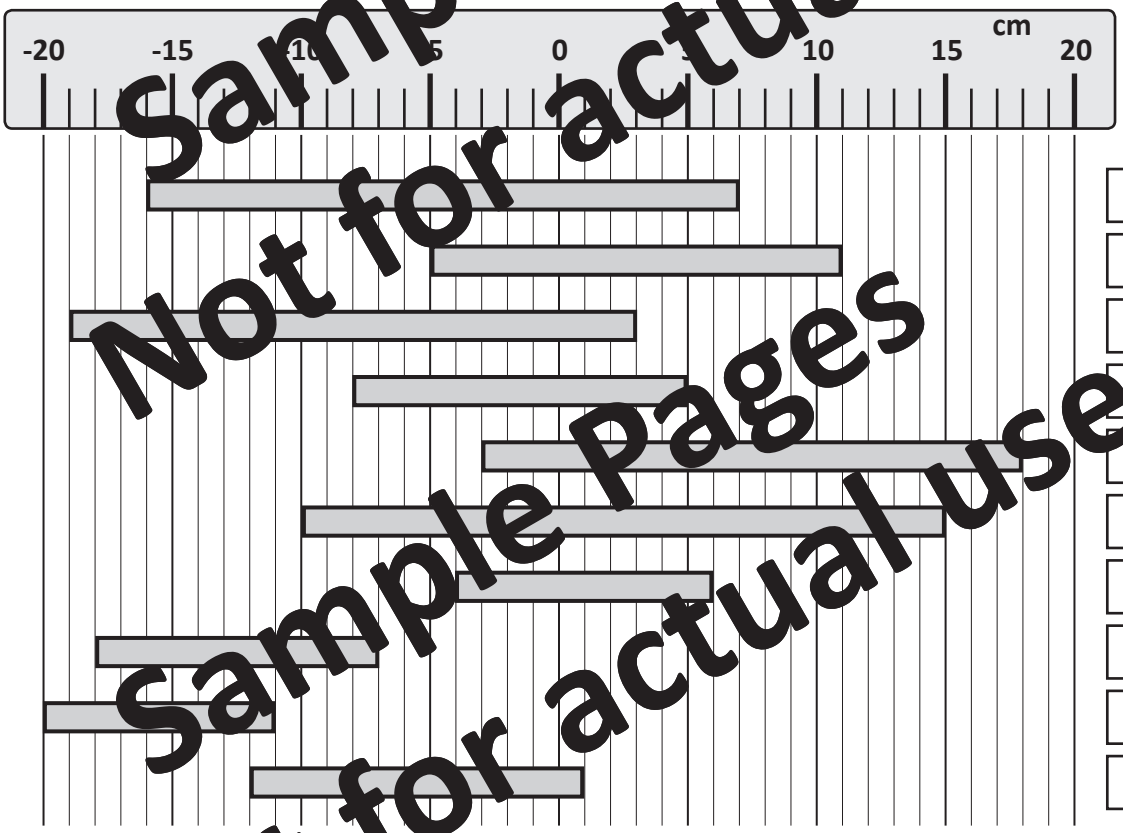
Name:

Date:

Teacher:

Year 6

(1) Use the negative number ruler to find the length of each rectangle.



(a) ☐

(b) ☐

(c) ☐

(d) ☐

(e) ☐

(f) ☐

(g) ☐

(h) ☐

(i) ☐

(j) ☐

(2) Circle the two numbers which have a difference of 3.

-5 **6** **4** **0** **-10**

(3) Circle the two numbers which have a difference of 7.

-1 **3** **9** **-12** **-4** **-7**

(4) Put each list of numbers in order, lowest to highest.

(a)	**4**	**-8**	**0**	**-11**	**-3**					
(b)	**-10**	**3**	**-4**	**-17**	**-2**					
(c)	**12**	**-22**	**18**	**-9**	**21**					
(d)	**-1**	**-31**	**-2**	**-26**	**-5**					
(e)	**-9**	**22**	**-48**	**36**	**-37**					

(5) For each of these number lines, put the missing numbers in the boxes.

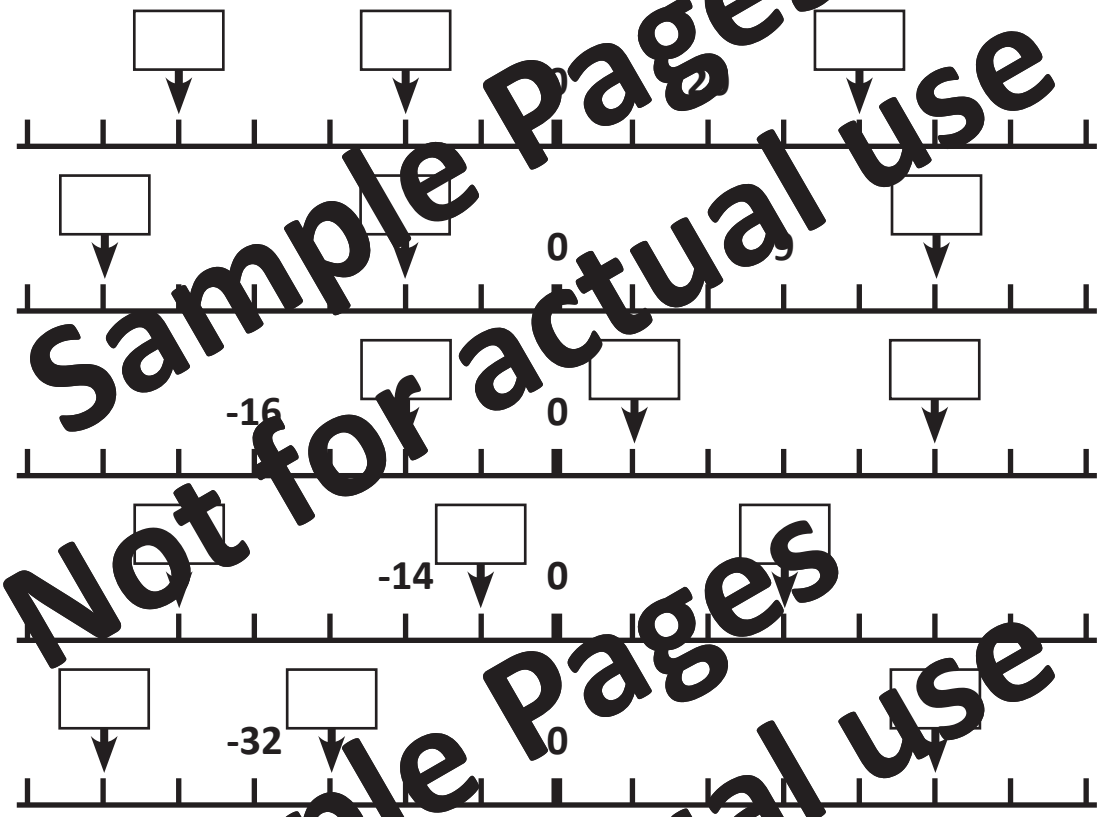
(a)

(b)

(c)

(d)

(e)



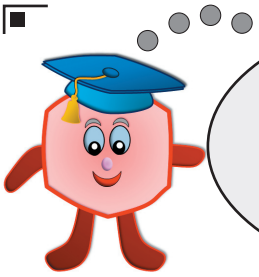
(6) The temperature one evening was 3°C. By the next morning it had dropped by 8°C.
What temperature was it the next morning?

(7) The temperature dropped during one day from 1.5°C to -3.2°C.
What was the overall drop in temperature?

(8) The temperature at the start of one day was 4.8°C.
If the temperature dropped by 7.6°C during the day, what was the new temperature?

(9) One day the temperature rose from -1.9°C to 6.6 °C.
By how many degrees did the temperature rise?

(10) Find the temperature at the start of a day if it had risen during the day by 5.7°C
to reach a temperature of 2.3°C



Maths Homework this week is about:

Long Multiplication

Name:

Date:

Teacher:

Year 6

For each of these questions, use the traditional method of long multiplication.

(1) 4 6 × 3 4

(2) 6 7 × 2 9

(3) 8 5 × 4 7

(4) 2 9 × 8 6

(5) 7 6 × 5 7

(6) 5 8 × 9 8

(7) 2 5 5 × 8 4

(8) 6 9 4 × 3 6

(9) 8 2 7 × 5 7

(10) 1 3 4 5 × 2 7

(11) 2 8 9 1 × 6 5

(12) 7 6 2 3 × 8 7

For each of these questions, use the grid method of long multiplication.

(13) **37 x 46**

Answer:

(14) **29 x 83**

Answer:

(15) **78 x 65**

Answer:

(16) **92 x 48**

Answer:

(17) **125 x 38**

Answer:

(18) **274 x 63**

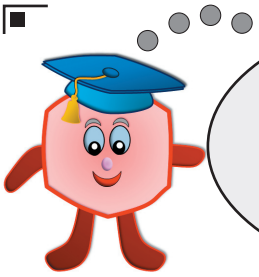
Answer:

(19) **652 x 47**

Answer:

(20) **829 x 73**

Answer:



Maths Homework this week is about:

Long Division

Name:

Date:

Teacher:

Year 6

Use long division, showing your working, to find the answer to each question.

(1) **672 ÷ 12**

1 2 ⟌ 6 7 2

(2) **948 ÷ 12**

1 2 ⟌ 9 4 8

(3) **882 ÷ 14**

1 4 ⟌ 8 8 2

(4) **684 ÷ 18**

1 8 ⟌ 6 8 4

(5) **735 ÷ 15**

1 5 ⟌ 7 3 5

(6) **768 ÷ 24**

2 4 ⟌ 7 6 8

(7) **855 ÷ 19**

1 9 ⟌ 8 5 5

(8) **864 ÷ 32**

3 2 ⟌ 8 6 4

(9) **949 ÷ 13**

1 3 ⟌ 9 4 9

(10) **945 ÷ 45**

4 5 ⟌ 9 4 5

(11) **4176 ÷ 12**

1 2 ⟌ 4 1 7 6

(12) **5838 ÷ 14**

1 4 ⟌ 5 8 3 8

(13) **8874 ÷ 17**

1 7 ⟌ 8 8 7 4

(14) **7353 ÷ 19**

1 9 ⟌ 7 3 5 3

(15) **5229 ÷ 21**

2 1 ⟌ 5 2 2 9

(16) **5226 ÷ 26**

2 6 ⟌ 5 2 2 6

(17) **5910 ÷ 15**

1 5 ⟌ 5 9 1 0

(18) **9262 ÷ 22**

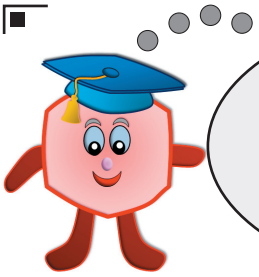
2 2 ⟌ 9 2 6 2

(19) **8277 ÷ 31**

3 1 ⟌ 8 2 7 7

(20) **8964 ÷ 18**

1 8 ⟌ 8 9 6 4



Maths Homework this week is about:

Mental Calculations

Name:

Date:

Teacher:

Year 6

For all the questions on this sheet you should try to work out the answer in your head without writing down any working.

(1) Addition Circles

Add together the numbers around each circle and write your answer in the centre circle.

(a) 16, 15, 17, 18

(b) 40, 20, 60, 80

(c) 19, 17, 21, 23

(d) 18, 9, 27, 36

(e) 30, 15, 45, 60

(f) 32, 22, 42, 52

(g) 130, 120, 140, 150

(h) 150, 100, 200, 250

(i) 112, 111, 113, 114

(j) 100, 70, 130, 160

(2) Subtraction Blocks

Subtract each pair of numbers and write your answer in the box.

(a) 96 − 32 = ☐

(b) 76 − 41 = ☐

(c) 87 − 28 = ☐

(d) 59 − 14 = ☐

(e) 83 − 46 = ☐

(f) 147 − 66 = ☐

(g) 183 − 79 = ☐

(h) 241 − 123 = ☐

(i) 276 − 98 = ☐

(j) 567 − 123 = ☐

(3) Multiplication Pyramids.
Multiply each pair of numbers and write your answer at the top of the pyramid.

(a) 19 5

(b) 7 8

(c) 4 15

(d) 16 8

(e) 20 15

(f) 5 13

(g) 3 17

(h) 11 12

(i) 6 24

(j) 14 5

(k) 30 9

(l) 15 15

(4) Division Pyramids.
Divide the number at the top of the pyramid by the number at the bottom and write your answer in the empty space in the pyramid.

(a) 108 9

(b) 72 6

(c) 91 7

(d) 99 11

(e) 90 6

(f) 121 11

(g) 68 4

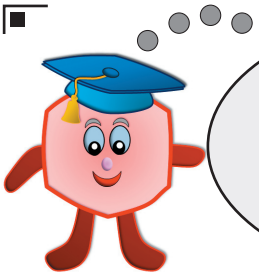
(h) 57 19

(i) 125 25

(j) 500 20

(k) 108 9

(l) 500 20



Maths Homework this week is about:

Factors, Multiples and Primes

Name:

Date:

Teacher:

Year 6

(1) Circle all the prime numbers in this list.

1 2 3 4 5 6 7 8 9 10

(2) What is the next prime number after 29? [ ]

(3) Give the next prime number after 47? [ ]

(4) Give the next five multiples of each of the following numbers.

(a)	7					
(b)	11					
(c)	12					
(d)	35					
(e)	46					

(5) For each pair of numbers, circle the number in the box which is a common multiple of both.

(a)

3	5

8	15
16	35

(b)

5	7

5	11
27	28

(c)

4	5

1	4
20	24

(d)

6	7

6	19
21	42

(e)

5	8

5	40
50	88

(f)

2	17

2	15
34	217

(6) Give the factors of each of these numbers.

(a) **7** has factors _____ and _____

(b) **11** has factors _____ and _____

(c) **13** has factors _____ and _____

(d) **19** has factors _____ and _____

(e) Fill in the missing word in this sentence:

Because each of the above numbers have exactly TWO FACTORS,

they are called _____ numbers.

(7) Give all the pairs of factors for each of these numbers:

(a) Factors of **10**

(b) Factors of **20**

(c) Factors of **16**

(d) Factors of **32**

(e) Factors of **42**

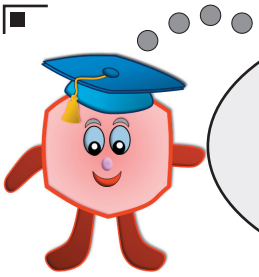
(f) Factors of **50**

(g) Factors of **72**

(h) Factors of **100**

(8) (a) Give the common factors of 10 and 16:

(b) Give the common factors of 20 and 50:



Maths Homework this week is about:

Order of Operations Calculations

Name:

Date:

Teacher:

Year 6

(1) Find the answer to each calculation.

(a)	5 × 2 + 6	=	
(b)	8 × 7 - 9	=	
(c)	20 ÷ 4 + 6	=	
(d)	50 ÷ 5 - 3	=	
(e)	8 + 5 × 4		
(f)	7 + 6 × 8	=	
(g)	9 + 15 ÷ 3	=	
(h)	28 - 3 × 2	=	
(i)	40 ÷ 8 × 3	=	
(j)	50 - 21 ÷ 7	=	

(2) Find the answer to each calculation.

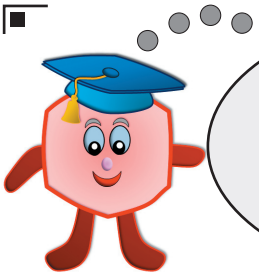
(a)	4 + 3 × 3 + 1	=	
(b)	1 + 6 × 5 + 3	=	
(c)	5 + 5 × 8 + 4		
(d)	8 + 3 × 7 - 2	=	
(e)	12 + 9 × 2 - 11	=	
(f)	50 - 21 + 18		
(g)	7 + 10 ÷ 2 + 3	=	
(h)	6 + 8 ÷ 4 + 10	=	
(i)	15 + 20 ÷ 4 - 10	=	
(j)	40 - 30 ÷ 6 + 1	=	

(3) Find the answer to each calculation. Remember to find the value inside the brackets first.

(a)	(4 + 8) × 5	=	
(b)	(3 + 4) × 11	=	
(c)	6 × (9 + 3)	=	
(d)	(9 + 7) × 4	=	
(e)	28 ÷ (4 + 3)	=	
(f)	60 ÷ (16 - 4)	=	
(g)	(31 + 3) ÷ 7	=	
(h)	(28 + 8) ÷ 12	=	
(i)	9 × (22 - 10)	=	
(j)	(32 - 22) × 8	=	

(4) Find the answer to each calculation. Again the value inside each pair of brackets needs to be found first.

(a)	(3 + 5) × (2 + 4)	=	
(b)	(2 + 7) × (3 + 4)	=	
(c)	(5 + 9) × (17 - 9)	=	
(d)	(19 - 16) × (8 + 6)	=	
(e)	(49 - 47) × (2 + 9)	=	
(f)	(82 - 62) × (64 - 56)	=	
(g)	(88 - 28) ÷ (14 + 4)	=	
(h)	(40 + 31) ÷ (17 - 10)	=	
(i)	(22 + 23) ÷ (51 - 18)	=	
(j)	(40 + 44) ÷ (28 - 22)	=	



Maths Homework this week is about:

Various Maths Problems

Name:

Date:

Teacher:

Year 6

(1) A shop sold packets of crisps at 45p each. How much would five packets of crisps cost?

(2) Find the total of the spots on all faces of three regular dice.

(3) A grandmother shares £25.80 equally between her three grandchildren. How much money did each grandchild receive?

(4) Pine trees were planted in neat rows in a field. If there were 12 rows with 18 trees in each row, how many trees were there altogether?

(5) The number of minutes spent on homework by a pupil on five nights of one week were: 23 mins, 28 mins, 36 mins, 18 mins, 22 mins. Find the total time spent, in hours and minutes.

(6) A computer was priced at £645. If it was reduced in a sale by £137, what was the sale price?

(7) There are 656 car parking spaces in a large car park. All the spaces are arranged in rows with the same number of spaces in each row. If there are 16 rows, how many spaces are there in each row?

(8) How many hours are there in total in one week?

(9) Find the sum of all the whole numbers from 1 to 20.

(10) A box of dog biscuits contains 96 biscuits. If the dog is given 8 biscuits per day, for how many days will the box last?

(11) Use this menu to answer the questions below.

Menu	
Tea	£0.80
Coffee	£1.10
Orange Juice	£1.25
Ham Sandwich	£1.80
Cheese Sandwich	£1.75
Fruit Salad	£1.40
Flapjack	£0.90
Frozen Yoghurt	£0.70

(a) Find the cost of seven cups of tea.

(b) What is the cost of a coffee and a cheese sandwich?

(c) Give the total cost of two glasses of orange juice and two flapjacks.

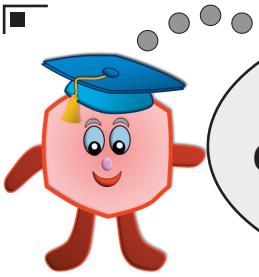
(d) How much would twelve frozen yoghurts cost?

(e) Calculate the total price of four cheese sandwiches and two fruit salads.

(f) Work out the cost of six coffees and three ham sandwiches.

(g) What is the total cost of eight fruit salads?

(h) Find the total cost of one of each item on the menu.



Maths Homework this week is about:

Checking Answers using Estimation

Name:

Date:

Teacher:

Year 6

(1) Sue said that **4.9 × 12.1 = 59.29**
By rounding each of the numbers to the nearest whole number, find an approximate answer to see whether Sue could be correct.

(2) Sam said that **29.7 × 41.3 = 12266.1**
By rounding each of the numbers to the nearest ten, find an approximate answer to see whether Sam could be correct.

(3) Helen said that **80.94 ÷ 1.9 = 42.6**
By rounding each of the numbers to an appropriate value, find an approximate answer to see whether Helen could be correct.

(4) By rounding each of the numbers to the nearest whole number, find an approximate answer to each of these calculations.

	Calculation	Approximate Values	Approximate Answer
(a)	**12.4 × 9.7**		
(b)	**13.1 × 4.3**		
(c)	**5.2 × 17.9**		
(d)	**19.7 × 15.2**		
(e)	**44.8 × 3.8**		
(f)	**49.7 × 10.3**		
(g)	**39.1 ÷ 4.7**		
(h)	**99.9 ÷ 19.9**		
(i)	**79.5 ÷ 3.1**		
(j)	**63.7 ÷ 1.6**		

(5) Use an estimate to see whether the following answers, given by a pupil, could be correct or not.
Write "YES" in the last column if the answer could be correct, and "NO" if it cannot be correct.

	Calculation	Pupil's Answer	Your Estimate	YES / NO
(eg)	46 + 11	57	50 + 10 = 60	YES
(a)	89 + 122	211		
(b)	71 + 202	273		
(c)	6[illegible]3 - 1[illegible]	20.7		
(d)	139.[illegible] - 39.7	3[illegible]7		
(e)	259.8 - 60.4	199.4		
(f)	7.9 × [illegible].2	92.68		
(g)	[illegible].9 [illegible]9.9	117.81		
(h)	11.2 × 4.1	45.92		
(i)	70.11 ÷ 4.8	34[illegible]		
(j)	60.39 ÷ 3.3	1[illegible].3		

(6) Use a suitable estimate to see whether each of these sale price savings on the labels could be correct.
Say "YES" if the sale price could be correct, and "NO" if it cannot be correct.

(eg)
WAS £69
NOW £31
SAVE £[illegible]

70 - 30 = 40
YES

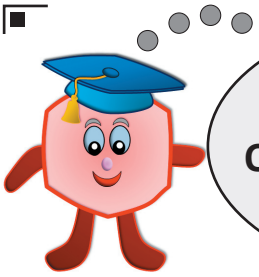
(a)
WAS £121
NOW £101
SAVE £10

(b)
WAS £24[illegible]
NOW £151
SAVE £5[illegible]

(c)
WAS £929
NOW £801
SAVE £1[illegible]

(d)
WAS £468
NOW £2[illegible]9
SAVE £229

(e)
WAS £861
NOW £459
SAVE £202



Maths Homework this week is about:

Ordering and Simplifying Fractions

Name:

Date:

Teacher:

Year 6

(1) Put a circle around the largest fraction in each box.

(a) $\frac{2}{3}$ $\frac{2}{5}$

(b) $\frac{4}{9}$ $\frac{4}{11}$

(c) $\frac{7}{18}$ $\frac{7}{15}$

(d) $\frac{12}{19}$ $\frac{12}{21}$

(e) $\frac{2}{9}$ $\frac{4}{9}$

(f) $\frac{11}{14}$ $\frac{9}{14}$

(g) $\frac{11}{18}$ $\frac{13}{18}$

(h) $\frac{14}{23}$ $\frac{19}{23}$

(2) Put the correct symbol in each box. Choose from [illegible] or [illegible].

(a) $\frac{3}{11}$ ☐ $\frac{4}{11}$

(b) $\frac{7}{11}$ ☐ $\frac{5}{16}$

(c) $\frac{5}{15}$ ☐ $\frac{2}{6}$

(d) $\frac{6}{17}$ ☐ $\frac{6}{19}$

(e) $\frac{1}{4}$ ☐ $\frac{1}{3}$

(f) $\frac{3}{4}$ ☐ $\frac{2}{3}$

(g) $\frac{3}{17}$ ☐ $\frac{9}{51}$

(h) $\frac{19}{20}$ ☐ $\frac{9}{10}$

(i) $\frac{83}{100}$ ☐ $\frac{43}{50}$

(j) $\frac{2}{5}$ ☐ $\frac{17}{20}$

(k) $\frac{6}{8}$ ☐ $\frac{3}{4}$

(l) $\frac{17}{24}$ ☐ $\frac{13}{25}$

(3) Put each of these sets of fractions in order, from lowest to highest.

(a) $\frac{3}{11}$ $\frac{10}{11}$ $\frac{2}{11}$ $\frac{7}{11}$ → ☐ ☐ ☐

(b) $\frac{6}{13}$ $\frac{6}{17}$ $\frac{6}{7}$ $\frac{6}{11}$ → ☐ ☐ ☐

(c) $\frac{10}{19}$ $\frac{4}{19}$ $\frac{2}{19}$ $\frac{7}{19}$ → ☐ ☐ ☐

(d) $\frac{3}{14}$ $\frac{3}{13}$ $\frac{3}{20}$ $\frac{3}{16}$ → ☐ ☐ ☐

(e) $\frac{2}{5}$ $\frac{9}{10}$ $\frac{3}{5}$ $\frac{1}{4}$ → ☐ ☐ ☐

(f) $\frac{3}{4}$ $\frac{6}{7}$ $\frac{2}{9}$ $\frac{1}{3}$ → ☐ ☐ ☐

(4) Write each of these fractions as simply as possible.

(a) $\frac{4}{6} = \square$

(b) $\frac{6}{8} = \square$

(c) $\frac{8}{14} = \square$

(d) $\frac{10}{18} = \square$

(e) $\frac{2}{14} = \square$

(f) $\frac{4}{10} = \square$

(g) $\frac{14}{24} = \square$

(h) $\frac{4}{30} = \square$

(i) $\frac{18}{34} = \square$

(5) Write each of these fractions as simply as possible.

(a) $\frac{12}{15} = \square$

(b) $\frac{40}{55} = \square$

(c) $\frac{8}{84} = \square$

(d) $\frac{25}{45} = \square$

(e) $\frac{30}{48} = \square$

(f) $\frac{18}{21} = \square$

(g) $\frac{20}{68} = \square$

(h) $\frac{56}{91} = \square$

(i) $\frac{27}{72} = \square$

(6) Say which number was used to simplify each of these fractions.

(a) $\frac{36}{44} = \frac{9}{11}$ ÷ ☐

(b) $\frac{35}{84} = \frac{5}{12}$ ÷ ☐

(c) $\frac{21}{48} = \frac{7}{16}$ ÷ ☐

(d) $\frac{40}{45} = \frac{8}{9}$ ÷ ☐

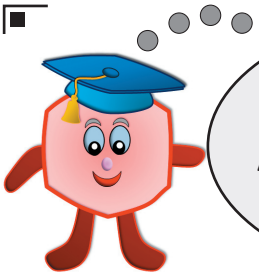
(e) $\frac{36}{66} = \frac{6}{11}$ ÷ ☐

(f) $\frac{16}{152} = \frac{2}{19}$ ÷ ☐

(g) $\frac{36}{264} = \frac{3}{22}$ ÷ ☐

(h) $\frac{54}{126} = \frac{6}{14}$ ÷ ☐

(i) $\frac{33}{88} = \frac{3}{8}$ ÷ ☐



Maths Homework this week is about:

Adding and Subtracting Fractions

Name:

Date:

Teacher:

Year 6

(1) Add each pair of fractions.

(a) $\frac{2}{7} + \frac{3}{7} = \square$

(b) $\frac{3}{11} + \frac{5}{11} = \square$

(c) $\frac{6}{15} + \frac{7}{15} = \square$

(d) $\frac{8}{23} + \frac{11}{23} = \square$

(e) $\frac{7}{19} + \frac{7}{19} = \square$

(f) $\frac{18}{29} + \frac{8}{29} = \square$

(2) Use the strips to add each pair of fractions.
Give each missing fraction and give the answer as simply as possible.

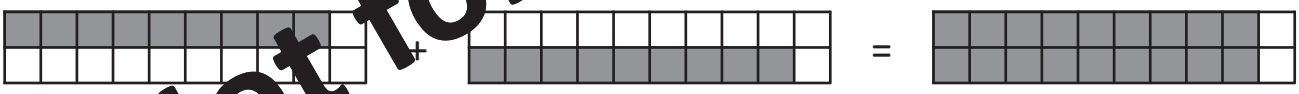
(a)

$\square + \square = \square$

(b)

$\square + \square = \square = \square$

(c)



$\square + \square = \square = \square$

(3) Change to fractions with the same denominator, and then add each pair of fractions.

(a) $\frac{1}{2} + \frac{1}{3} = \square + \square = \square$

(b) $\frac{2}{7} + \frac{3}{5} = \square + \square = \square$

(c) $\frac{1}{4} + \frac{2}{5} = \square + \square = \square$

(d) $\frac{3}{8} + \frac{4}{9} = \square + \square = \square$

(e) $\frac{1}{8} + \frac{3}{5} = \square + \square = \square$

(f) $\frac{2}{3} + \frac{1}{7} = \square + \square = \square$

(4) Subtract each pair of fractions.

(a) $\frac{5}{9} - \frac{1}{9} = \square$

(b) $\frac{12}{13} - \frac{6}{13} = \square$

(c) $\frac{17}{19} - \frac{16}{19} = \square$

(d) $\frac{19}{30} - \frac{8}{30} = \square$

(e) $\frac{14}{27} - \frac{7}{27} = \square$

(f) $\frac{30}{31} - \frac{17}{31} = \square$

(5) Use the strips to subtract each pair of fractions.
Give each missing fraction, and give the answer as simply as possible.

(a)

$\square - \square = \square = \square$

(b)

$\square - \square = \square = \square$

(c)

$\square - \square = \square = \square$

(6) Change to fractions with the same denominator, and then subtract each pair of fractions.

(a) $\frac{2}{3} - \frac{1}{2} = \square - \square = \square$

(b) $\frac{4}{5} - \frac{2}{3} = \square - \square = \square$

(c) $\frac{3}{4} - \frac{2}{3} = \square - \square = \square$

(d) $\frac{5}{6} - \frac{2}{5} = \square - \square = \square$

(e) $\frac{6}{7} - \frac{1}{2} = \square - \square = \square$

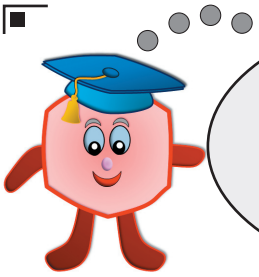
(f) $\frac{3}{5} - \frac{2}{7} = \square - \square = \square$

(g) $\frac{5}{8} - \frac{1}{5} = \square - \square = \square$

(h) $\frac{7}{8} - \frac{2}{3} = \square - \square = \square$

(i) $\frac{9}{10} - \frac{3}{7} = \square - \square = \square$

(j) $\frac{13}{15} - \frac{1}{2} = \square - \square = \square$



Maths Homework this week is about:

Multiplying Fractions

Name:

Date:

Teacher:

Year 6

(1) Multiply each pair of fractions.

(In this question you are multiplying by $\frac{1}{2}$).

(a) $\frac{1}{2} \times \frac{3}{7} = \square$ (b) $\frac{1}{2} \times \frac{5}{8} = \square$ (c) $\frac{1}{2} \times \frac{3}{7} = \square$

(d) $\frac{1}{2} \times \frac{7}{9} = \square$ (e) $\frac{1}{2} \times \frac{9}{11} = \square$ (f) $\frac{1}{2} \times \frac{15}{17} = \square$

(g) What do you notice? _____

(2) Multiply each pair of fractions.

(In this question you are multiplying by $\frac{1}{3}$).

(a) $\frac{1}{3} \times \frac{5}{7} = \square$ (b) $\frac{1}{3} \times \frac{4}{9} = \square$ (c) $\frac{1}{3} \times \frac{2}{5} = \square$

(d) $\frac{1}{3} \times \frac{7}{8} = \square$ (e) $\frac{1}{3} \times \frac{8}{11} = \square$ (f) $\frac{1}{3} \times \frac{1}{22} = \square$

(g) What do you notice? _____

(3) Multiply each pair of fractions.

(In this question you are multiplying by $\frac{2}{5}$).

(a) $\frac{2}{5} \times \frac{3}{4} = \square$ (b) $\frac{2}{5} \times \frac{4}{5} = \square$ (c) $\frac{2}{5} \times \frac{4}{7} = \square$

(d) $\frac{2}{5} \times \frac{6}{7} = \square$ (e) $\frac{2}{5} \times \frac{9}{11} = \square$ (f) $\frac{2}{5} \times \frac{8}{15} = \square$

(g) What do you notice? _____

(4) Find the answer to each of these fraction multiplications.

(a) $\frac{5}{8} \times \frac{3}{4} = \square$

(b) $\frac{2}{9} \times \frac{4}{5} = \square$

(c) $\frac{7}{11} \times \frac{12}{15} = \square$

(d) $\frac{6}{7} \times \frac{8}{11} = \square$

(e) $\frac{1}{3} \times \frac{11}{14} = \square$

(f) $\frac{5}{7} \times \frac{8}{9} = \square$

(g) $\frac{11}{12} \times \frac{5}{8} = \square$

(h) $\frac{9}{10} \times \frac{7}{13} = \square$

(i) $\frac{2}{17} \times \frac{3}{11} = \square$

(5) Find the answer to each of these fraction multiplications.
In these questions you are multiplying each fraction by itself.

(a) $\frac{1}{2} \times \frac{1}{2} = \square$

(b) $\frac{2}{3} \times \frac{2}{3} = \square$

(c) $\frac{3}{4} \times \frac{3}{4} = \square$

(d) $\frac{4}{5} \times \frac{4}{5} = \square$

(e) $\frac{5}{6} \times \frac{5}{6} = \square$

(f) $\frac{6}{7} \times \frac{6}{7} = \square$

(g) $\frac{7}{8} \times \frac{7}{8} = \square$

(h) $\frac{8}{9} \times \frac{8}{9} = \square$

(i) $\frac{9}{10} \times \frac{9}{10} = \square$

(6) In these questions, multiply each pair of fractions, then simplify the answer.

(a) $\frac{3}{5} \times \frac{1}{6} = \square = \square$

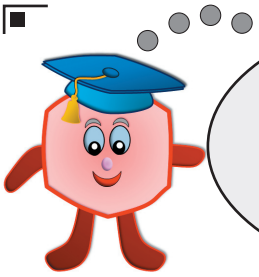
(b) $\frac{4}{7} \times \frac{5}{6} = \square = \square$

(c) $\frac{5}{8} \times \frac{7}{15} = \square = \square$

(d) $\frac{9}{10} \times \frac{7}{12} = \square = \square$

(e) $\frac{7}{8} \times \frac{3}{11} = \square = \square$

(f) $\frac{4}{9} \times \frac{3}{8} = \square = \square$



Maths Homework this week is about:

Dividing Fractions by Whole Numbers

Name:

Date:

Teacher:

Year 6

(1) Circle the correct answer for each of these divisions.

(a) $\frac{2}{3} \div 5$

$\frac{10}{3}$ $\frac{2}{15}$ $\frac{10}{15}$

(b) $\frac{4}{5} \div 2$

$\frac{4}{10}$ $\frac{5}{6}$ $\frac{2}{5}$

(c) $\frac{3}{8} \div 3$

$\frac{9}{8}$ $\frac{9}{24}$ $\frac{3}{24}$

(d) $\frac{5}{6} \div 3$

$\frac{5}{18}$ $\frac{15}{18}$ $\frac{5}{2}$

(e) $\frac{2}{7} \div 6$

$\frac{2}{42}$ $\frac{12}{7}$ $\frac{3}{42}$

(f) $\frac{7}{9} \div 4$

$\frac{28}{36}$ $\frac{7}{36}$ $\frac{28}{9}$

(g) $\frac{9}{10} \div 5$

$\frac{45}{10}$ $\frac{9}{2}$ $\frac{9}{50}$

(h) $\frac{9}{11} \div 8$

$\frac{72}{88}$ $\frac{72}{1}$ $\frac{9}{88}$

(i) $\frac{7}{9} \div 9$

$\frac{7}{1}$ $\frac{7}{81}$ $\frac{63}{9}$

(j) $\frac{3}{7} \div 10$

$\frac{30}{70}$ $\frac{30}{7}$ $\frac{3}{70}$

(k) $\frac{1}{8} \div 8$

$\frac{1}{64}$ $\frac{8}{64}$ $\frac{1}{1}$

(l) $\frac{5}{8} \div 6$

$\frac{30}{8}$ $\frac{5}{48}$ $\frac{30}{48}$

(2) Divide each of these fractions by 2.

(a) $\frac{5}{9} \div 2 = \square$

(b) $\frac{2}{15} \div 2 = \square$

(c) $\frac{1}{13} \div 2 = \square$

(d) $\frac{11}{12} \div 2 = \square$

(e) $\frac{7}{11} \div 2 = \square$

(f) $\frac{15}{17} \div 2 = \square$

(g) $\frac{7}{17} \div 2 = \square$

(h) $\frac{3}{19} \div 2 = \square$

(i) $\frac{17}{19} \div 2 = \square$

(3) Divide each of these fractions by 3.

(a) $\frac{2}{7} \div 3 = \square$

(b) $\frac{8}{11} \div 3 = \square$

(c) $\frac{1}{5} \div 3 = \square$

(d) $\frac{7}{10} \div 3 = \square$

(e) $\frac{5}{14} \div 3 = \square$

(f) $\frac{5}{8} \div 3 = \square$

(g) $\frac{2}{5} \div 3 = \square$

(h) $\frac{5}{9} \div 3 = \square$

(i) $\frac{10}{11} \div 3 = \square$

(4) Fill in the missing boxes in these calculations.

(a) $\frac{3}{4} \div 5 = \frac{\square}{20}$

(b) $\frac{2}{5} \div 3 = \frac{\square}{15}$

(c) $\frac{4}{7} \div 5 = \frac{\square}{35}$

(d) $\frac{5}{7} \div 4 = \frac{\square}{28}$

(e) $\frac{5}{8} \div 6 = \frac{\square}{48}$

(f) $\frac{2}{9} \div 7 = \frac{\square}{63}$

(g) $\frac{5}{6} \div 2 = \frac{5}{\square}$

(h) $\frac{7}{9} \div 4 = \frac{7}{\square}$

(i) $\frac{5}{11} \div 6 = \frac{5}{\square}$

(j) $\frac{1}{9} \div 9 = \frac{1}{\square}$

(k) $\frac{3}{11} \div 7 = \frac{3}{\square}$

(l) $\frac{5}{6} \div 9 = \frac{5}{\square}$

(5) For each of these questions, divide the fraction by the whole number, and then simplify your answer.

(a) $\frac{10}{11} \div 5 = \square = \square$

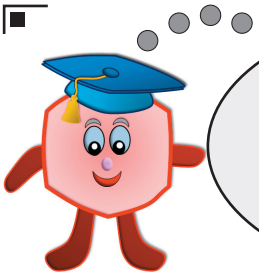
(b) $\frac{18}{19} \div 3 = \square = \square$

(c) $\frac{12}{13} \div 6 = \square = \square$

(d) $\frac{9}{10} \div 6 = \square = \square$

(e) $\frac{10}{17} \div 5 = \square = \square$

(f) $\frac{21}{22} \div 7 = \square = \square$



Maths Homework this week is about:

Fractions to Decimals

Name:

Date:

Teacher:

Year 6

(1) Fill in the missing values for these fractions and decimals.

(a) $\frac{\square}{10} = \square$

(b) **0.3** = $\square$

(c) **0.4** = $\square$

(d) $\square = \frac{1}{10}$

(2) Write each of these decimals as tenths, and then write the fraction as simply as possible.

(a) **0.2** = $\square$ = $\square$

(b) **0.4** = $\square$ = $\square$

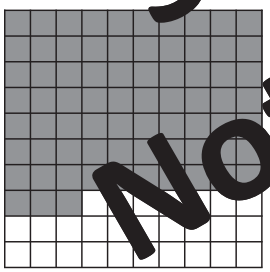
(c) **0.6** = $\square$ = $\square$

(d) **0.8** = $\square$ = $\square$

(e) **0.5** = $\square$ = $\square$

(3) For each of the diagrams, find the shaded area both as a decimal and as a fraction.

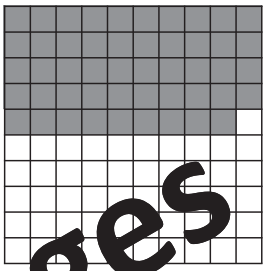
(a)



Decimal: $\square$

Fraction: $\square$

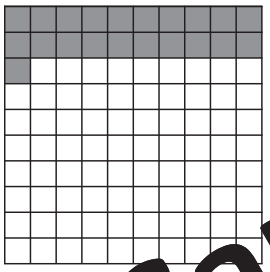
(b)



Decimal: $\square$

Fraction: $\square$

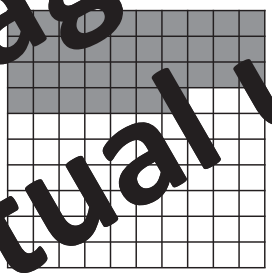
(c)



Decimal: $\square$

Fraction: $\square$

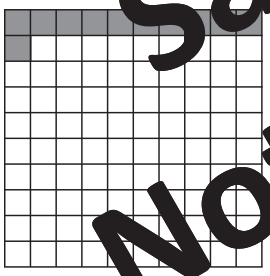
(d)



Decimal: $\square$

Fraction: $\square$

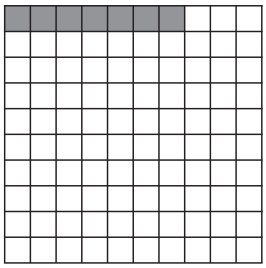
(e)



Decimal: $\square$

Fraction: $\square$

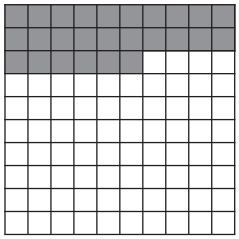
(f)



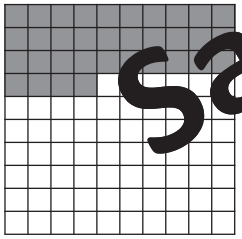
Decimal: $\square$

Fraction: $\square$

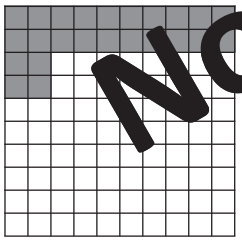
(4) For each of these diagrams, give the shaded area as a decimal and a fraction out of 100, then work out the fraction as simply as possible.

(a) 

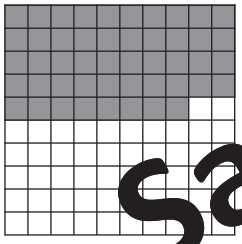
Decimal: Fraction of 100: Simplest Fraction:

(b) 

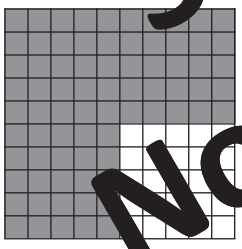
Decimal: Fraction of 100: Simplest Fraction:

(c) 

Decimal: Fraction of 100: Simplest Fraction:

(d) 

Decimal: Fraction of 100: Simplest Fraction:

(e) 

Decimal: Fraction of 100: Simplest Fraction:

(5) Write these fractions as decimals.

(a) $\frac{1}{5}$ = ☐

(b) $\frac{2}{5}$ = ☐

(c) $\frac{3}{5}$ = ☐

(d) $\frac{4}{5}$ = ☐

(e) $\frac{1}{8}$ = ☐

(f) $\frac{3}{8}$ = ☐

(g) $\frac{5}{8}$ = ☐

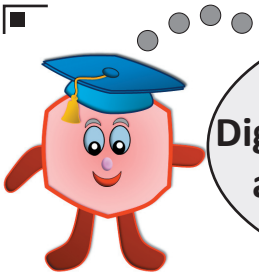
(h) $\frac{7}{8}$ = ☐

(i) $\frac{1}{20}$ = ☐

(j) $\frac{3}{20}$ = ☐

(k) $\frac{7}{20}$ = ☐

(l) $\frac{11}{20}$ = ☐



Maths Homework this week is about:

Digit Values and Multiplying and Dividing by 10, 100, 1000 etc

Name:

Date:

Teacher:

Year 6

(1) Give the value, in words, of the digit indicated by the arrow in each of these numbers.

(a) **46** _____

(b) **387** _____

(c) **642** _____

(d) **12 463** _____

(e) **31 648** _____

(f) **49 613** _____

(g) **61 325** _____

(h) **1 723 384** _____

(i) **9 256 327** _____

(j) **3 426 574** _____

(2) In each number, circle the digit equal to the value asked for.

(a)	Circle the digit equal to **Two thousand**.	**12 282**
(b)	Circle the digit equal to **Four hundred**.	**49 494**
(c)	Circle the digit equal to **Eighty thousand**.	**88 787**
(d)	Circle the digit equal to **Three thousand**.	**633 633**
(e)	Circle the digit equal to **Four hundred thousand**.	**448 844**
(f)	Circle the digit equal to **Seventy thousand**.	**7 776 777**
(g)	Circle the digit equal to **Nine million**.	**9 999 339**
(h)	Circle the digit equal to **Twenty thousand**.	**121 212**
(i)	Circle the digit equal to **Three thousand**.	**5 533 355**
(j)	Circle the digit equal to **Two Million**.	**2 222 222**

(3) Give the value, in words, of each of the digits indicated by the arrows.

(a) **3.476** _____

(b) **19.73** _____

(c) **26.153** _____

(d) **18.576** _____

(4) Write the answer to each multiplication in the box.

(a) 56 × 10 = ☐

(b) 39 × 10 = ☐

(c) 103 × 10 = ☐

(d) 421 × 100 = ☐

(e) 3 030 × 100 = ☐

(f) 5 002 × 100 = ☐

(g) 129 × 1 000 = ☐

(h) 390 × 1 000 = ☐

(i) 200 × 1 000 = ☐

(j) 1 683 × 1 000 = ☐

(k) 9 203 × 1 000 = ☐

(l) 586 × 10 000 = ☐

(5) Write the answer to each division in the box.

(a) 420 ÷ 10 = ☐

(b) 1 380 ÷ 10 = ☐

(c) 2 900 ÷ 10 = ☐

(d) 1 700 ÷ 10 = ☐

(e) 8 300 ÷ 100 = ☐

(f) 12 000 ÷ 100 = ☐

(g) 3 000 ÷ 100 = ☐

(h) 19 000 ÷ 1 000 = ☐

(i) 2 640 000 ÷ 1 000 = ☐

(j) 1 130 000 ÷ 1 000 = ☐

(k) 126 000 ÷ 1 000 = ☐

(l) 330 000 ÷ 10 000 = ☐

(6) Write the missing values for these calculations in the boxes.

(a) **99** × ☐ = **990**

(b) ☐ ÷ **100** = **390**

(c) **1600** ÷ **10** = ☐

(d) **5** × ☐ = **5 000**

(e) ☐ × **100** = **2 200**

(f) **800** × **1 000** = ☐

(g) **6 000** ÷ **100** = ☐

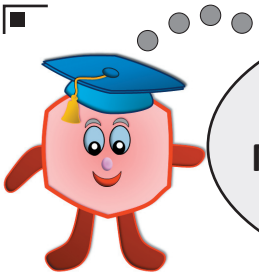
(h) **9 100** ÷ ☐ = **910**

(i) **11** × ☐ = **11 000**

(j) **301 000** ÷ **100** = ☐

(k) ☐ × **100** = **260 000**

(l) ☐ ÷ **10** = **830**



Maths Homework this week is about:

Multiplying Decimals by Whole Numbers

Name:

Date:

Teacher:

Year 6

(1) Try to work out these multiplications in your head. (You can use paper if you need to).

(a)

1.3
0.5
0.9
4.1

× 6

(b)

1.4
2.6
1.1
3.3

× 7

(c)

0.3
1.4
2.5
0.8

× 8

(2) Find the answer to each decimal multiplication.

(a) 3.9 × 8 = _____

(b) 9.6 × 4 = _____

(c) 6.2 × 3 = _____

(d) 5.8 × 7 = _____

(e) 7.5 × 9 = _____

(f) 6.3 × 5 = _____

(g) 3.7 × 6 = _____

(h) 9.9 × 2 = _____

(i) 3.6 × 7 = _____

(j) 9.2 × 6 = _____

(k) 5.4 × 9 = _____

(l) 4.9 × 8 = _____

(3) Find the answer to each decimal multiplication.

(a) 12.4 × 5

(b) 36.3 × 4

(c) 23.7 × 6

(d) 54.4 × 7

(e) 17.6 × 9

(f) 39.9 × 3

(g) 28.2 × 8

(h) 12.8 × 4

(i) 17.3 × 7

(4) Multiply each decimal by the two digit whole number.

(a) 8.7 × 32

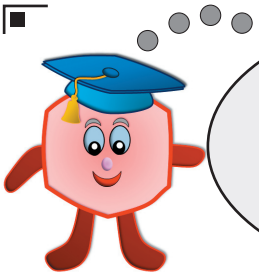
(b) 4.5 × 29

(c) 6.7 × 45

(d) 9.3 × 26

(e) 7.8 × 67

(f) 8.4 × 92



Maths Homework this week is about:

Divisions with Decimal Answers and Rounding Problems

Name:

Date:

Teacher:

Year 6

All of the division questions here have decimal answers.
By showing your working, find the answer to each question.

(1) Find the answer if 24 is divided by 5.

Answer

(2) How many times does 8 go into 62.

Answer

(3) Divide 38 by 4.

Answer

(4) Calculate the answer if 82 is divided by 8.

Answer

(5) A pile of sand weighing 9 kg was divided into five equal piles.
Give the weight of each pile.

Answer

(6) £62 was shared equally between four children.
How much did each child get?

Answer

(7) A ribbon of length 98 cm was cut into eight equal pieces.
How long was each piece?

Answer

(8) 99 litres of water was divided exactly between five barrels.
How much water was in each barrel?

Answer

(9) Eight items cost £110 in total. If they each cost the same amount, how much does each item cost?

Answer

(10) A square has an area of 94 cm². If it is split into four identical smaller squares, what is the area of each one?

Answer

In these questions you should round up the answer to the accuracy asked for.

(10) The number of visitors to a zoo one week was 4793. What is this to the nearest hundred?

Answer

(11) The number of sweets in a large jar is 268. What is this number to the nearest 10?

Answer

(12) A school shop made £45.26 on five days. By dividing this by five, find the mean average amount taken per day. Give your answer to the nearest penny.

Answer

(13) Three children had a total of £34.17. Divide this by three to give the mean average amount per person. Give your answer to the nearest 10p.

Answer

(14) A runner ran a total of 35.58 miles over six days. Divide this number by six to give the average distance ran each day. Give the answer to the nearest mile.

Answer

(15) Divide 30.88 by eight and give your answer to the nearest whole number.

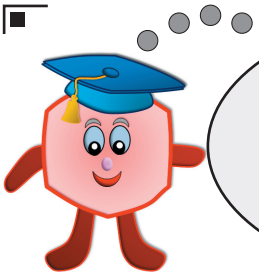
Answer

(16) A farm animal ate 34.37 kg of food in seven days. Divide this by seven to find the average weight of food eaten per day. Give your answer to the nearest kilogram.

Answer

(17) Divide 77.67 by nine and give your answer to one decimal place.

Answer



Maths Homework this week is about:

Fraction, Decimal and Percentage Equivalents

Name:

Date:

Teacher:

Year 6

(1) Give each of these percentages as a decimal.

(a)	46 %	=		(b)	37 %	=	
(c)	17 %	=		(d)	62 %	=	
(e)	78 %	=		(f)	99 %	=	
(g)	30 %	=		(h)	70 %	=	
(i)	9 %	=		(j)	3 %	=	

(2) Give each of these decimals as a percentage.

(a)	0.56	=		(b)	0.19	=	
(c)	0.88	=		(d)	0.93	=	
(e)	0.4	=		(f)	0.2	=	
(g)	0.5	=		(h)	0.01	=	
(i)	0.04	=		(j)	0.06	=	

(3) Give each of these fractions as a percentage.

(a)	$\frac{13}{100}$	=		(b)	$\frac{49}{100}$	=	
(c)	$\frac{91}{100}$	=		(d)	$\frac{21}{100}$	=	
(e)	$\frac{19}{100}$	=		(f)	$\frac{27}{100}$	=	
(g)	$\frac{1}{100}$	=		(h)	$\frac{79}{100}$	=	
(i)	$\frac{7}{100}$	=		(j)	$\frac{71}{100}$	=	

(4) Give each of these percentages as a fraction.

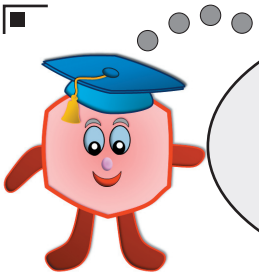
(a)	81 %	=		(b)	77 %	=	
(c)	17 %	=		(d)	23 %	=	
(e)	31 %	=		(f)	11 %	=	
(g)	99 %	=		(h)	59 %	=	
(i)	3 %	=		(j)	41 %	=	

(5) Fill in the missing values in this table. Give fractions in the simplest form.

	Fraction	Decimal	Percentage
(a)		0.1	
(b)	$\frac{2}{5}$		
(c)		0.7	
(d)			25 %
(e)	$\frac{3}{4}$		
(f)			80 %
(g)		0.125	
(h)	$\frac{1}{40}$		
(i)		0.[illegible]	
(j)			60 %
(k)	$\frac{1}{5}$		
(l)			64 %
(m)	$\frac{22}{25}$		
(n)		0.28	
(o)		0.12	
(p)	$\frac{5}{8}$		
(q)			87.5 %
(r)			40 %
(s)	$\frac{24}{25}$		
(t)		0.[illegible]	

(6) (a) A pupil scored 18 out of 20 in a test.
What is this as a percentage?

(b) Another pupil scored 11 out of 20 in the test.
What is this as a percentage?



Maths Homework this week is about:

Ratio Problems

Name:

Date:

Teacher:

Year 6

(1) This recipe makes 10 cup cakes. Give the quantities for the number of cakes below:

(a) 20 cakes (b) 15 cakes (c) 35 cakes

Flour	200 g			
Butter	180 g			
Sugar	90 g			
Eggs	4			

(2) Here is a recipe to make 25 lemon shortbread biscuits.
Give the quantities for the number of biscuits below:

(a) 50 biscuits (b) 5 biscuits (c) 80 biscuits

Flour	450g			
Butter	300g			
Sugar	150g			
Lemon essence	10g			

(3) The ratio for the amounts of money in each pair of boxes is given.
Find the missing amount of money in each pair of boxes.

	Ratio							
(a)	1 : 3	(b)	1 : 5	(c)	1 : 2	(d)	1 : 6
£7 :			: £45	£4.50 :		£2.50 :	
(e)	1 : 7	(f)	1 : 9	(g)	1 : 12	(h)	1 : 8
	: £10.50	£8 :			: £108	£1.25 :	
(i)	1 : 4	(j)	1 : 11	(k)	1 : 10	(l)	1 : 7
£8.50 :			: £12.21	£9.61 :			: £2.80

(4) Helen and Mark have ages in the ratio 1 : 5.
If Helen is 7 years old, how old is Mark?

(5) Kim and Ali have ages in the ratio 1 : 3.
If Ali is 27 years old, how old is Kim?

(6) The ratio of water to orange juice in a drink is 12 : 1.
(a) If you use 120 ml of water, how much orange juice do you need?

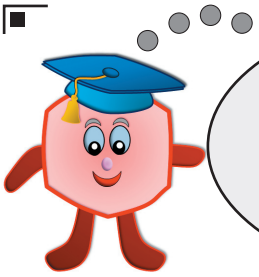
(b) If you use 15 ml of orange juice, how much water must you add to this?

(7) The ratio of oak trees to ash trees in a wood is 1 : 6.
If there are 72 ash trees, how many oak trees are there?

(8) The ratio of staff to pupils in a small school is 1 : 5.
If there are 17 members of staff, how many pupils are there?

(9) The ratio of cows to sheep on a farm is 1 : 16.
There are 112 sheep. How many cows are there?

(10) The ratio of books to CDs in a library is 9 : 2.
If there are 2700 books, how many CDs are there?



Maths Homework this week is about:

Percentages

Name:

Date:

Teacher:

Year 6

(1) (a) Find 10% of 240

(b) Find 10% of 145

(c) Find 20% of 15

(d) Find 20% of 44

(e) Find 40% of 50

(f) Find 60% of 55m.

(2) Pick one of the following prices, find 15%, and then subtract this to find the sale value.

- SALE -
15% off

(a) Price **£50**
10% is _____
5% is _____
15% is _____
Sale Price _____

(b) Price **£80**
10% is _____
5% is _____
15% is _____
Sale Price _____

(c) Price **£12**
10% is _____
5% is _____
15% is _____
Sale Price _____

(d) Price **£150**
10% is _____
5% is _____
15% is _____
Sale Price _____

(e) Price **£36**
10% is _____
5% is _____
15% is _____
Sale Price _____

(f) Price **£14**
10% is _____
5% is _____
15% is _____
Sale Price _____

(3) A bank offers 3% interest per year on savings.
For each of these values, find 3%, and then add this to the amount in the account to find the total in the account after the interest has been added.

3% interest

	Amount in account	3% interest	Total after interest is added
(a)	£200	1% is _____ 3% is _____	
(b)	£300	1% is _____ 3% is _____	
(c)	£450	1% is _____ 3% is _____	
(d)	£75	1% is _____ 3% is _____	
(e)	£3000	1% is _____ 3% is _____	
(f)	£6750	1% is _____ 3% is _____	

(4) To find 17.5%, we can find 10% + 5% + 2.5%.

Find 17.5% of each of these amounts.

(a) **40**

10% is _____
5% is _____
2.5% is _____

17.5% is _____

(b) **8**

10% is _____
5% is _____
2.5% is _____

17.5% is _____

(c) **180**

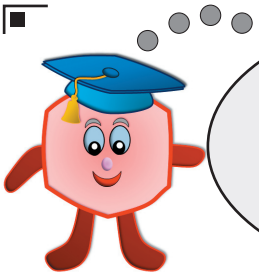
10% is _____
5% is _____
2.5% is _____

17.5% is _____

(d) **900**

10% is _____
5% is _____
2.5% is _____

17.5% is _____



Maths Homework this week is about:

Similar Shapes

Name:

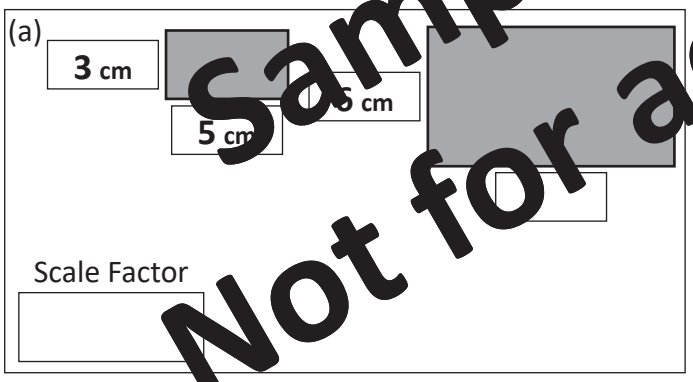
Date:

Teacher:

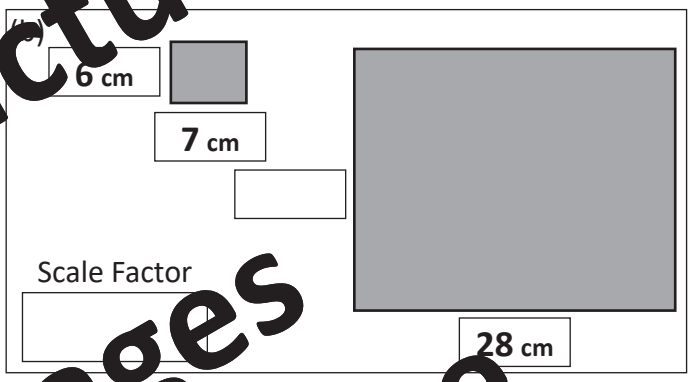
Year 6

(1) Each pair of rectangles is similar. For each pair, find the scale factor for the lengths, and then find the missing length, indicated by the box. (The diagrams are not drawn to scale).

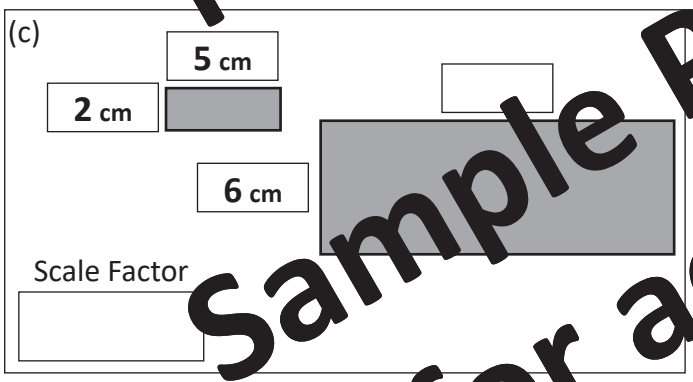
(a)



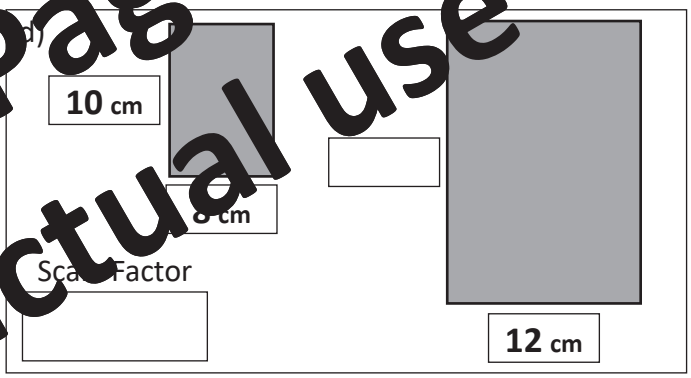
(b)



(c)

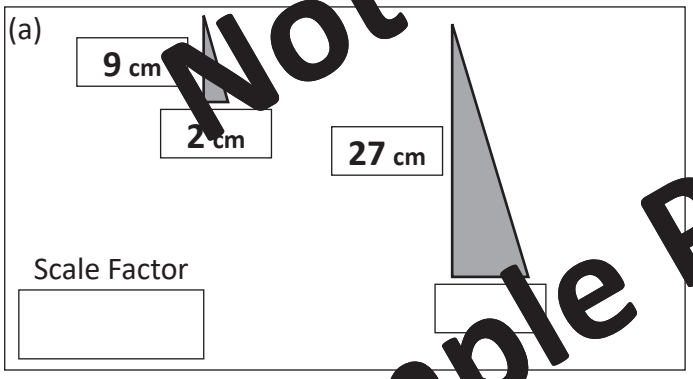


(d)

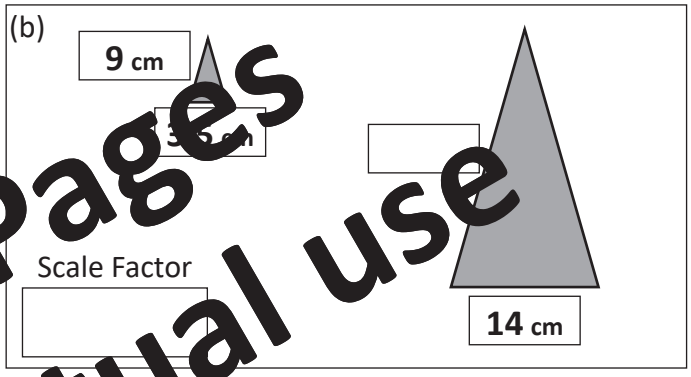


(2) These pairs of triangles are similar. Find the scale factor and missing length, indicated by the box, for each one.

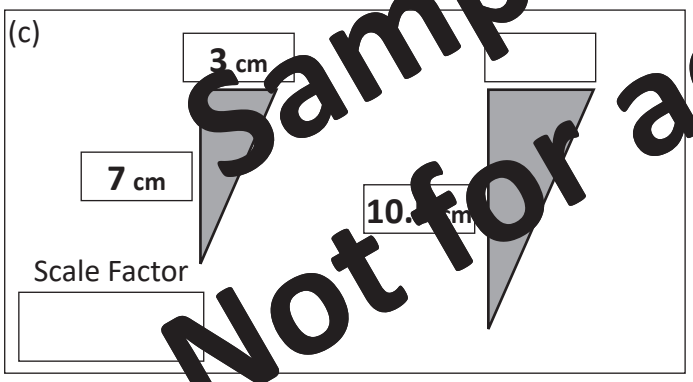
(a)



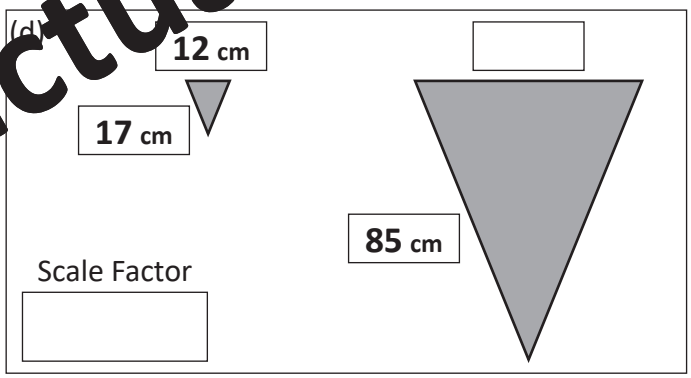
(b)



(c)

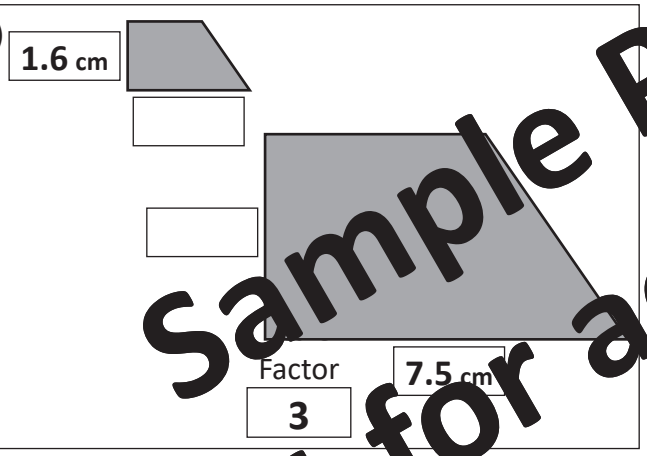


(d)

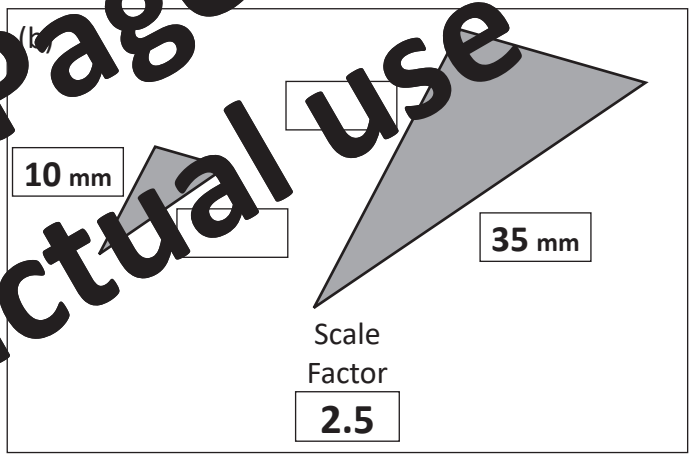


(3) Use the given scale factor to find the missing side lengths in each pair of similar shapes.
(The diagrams are not drawn to scale).

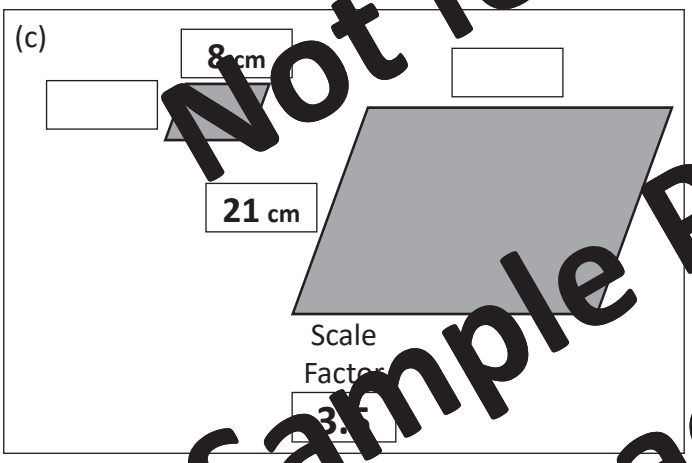
(a)



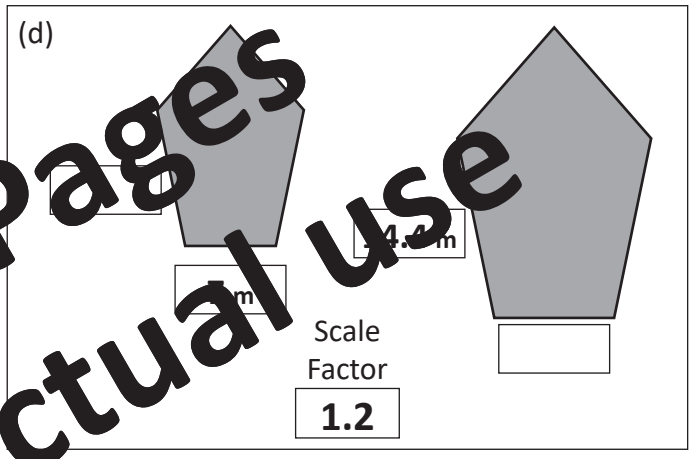
(b)



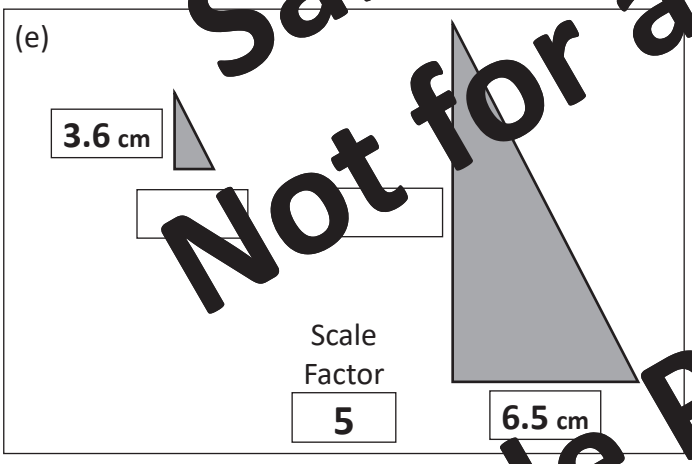
(c)



(d)



(e)



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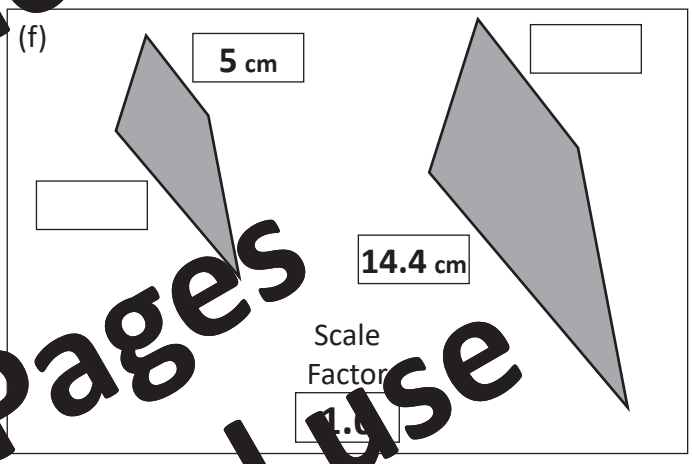
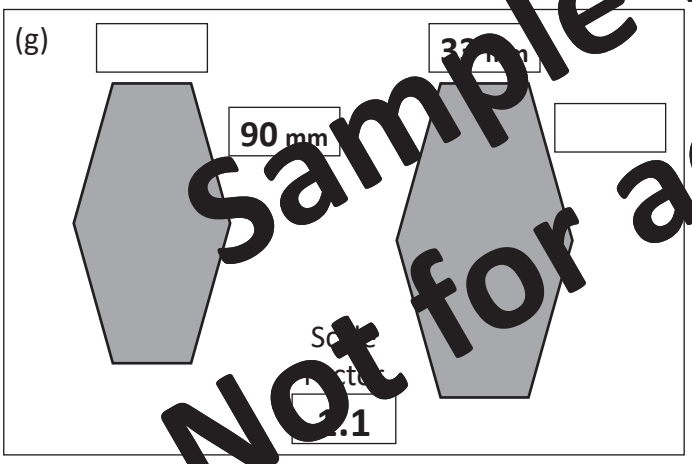
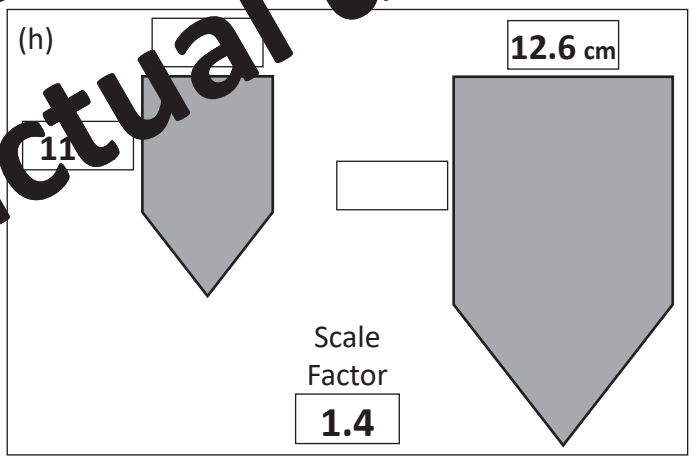
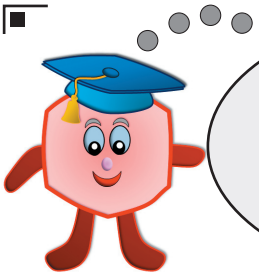


(g)



(h)





Maths Homework this week is about:

Unequal Sharing

Name:

Date:

Teacher:

Year 6

(1) A running track is 400m long. A runner tripped up $\frac{2}{5}$ of the way around the track. How far had the runner ran when they tripped up?

Distance:

(2) A box contained 36 sweets. Sue ate $\frac{4}{9}$ of the sweets and Joe ate the rest.

How many sweets did they each eat?

Sue:

Joe:

(3) Sasha and Kai share £50. If Sasha gets £5 more than Kai, how much do they each get?

Kai:

Sasha:

(4) The total area of a field is 24 m^2. The area planted with carrots is 9 m^2 more than the area planted with potatoes. Find the area for each crop.

Potatoes:

Carrots:

(5) The total height of an elm tree and a birch tree is 14 m. The elm tree is 4 m taller than the birch tree. Find the height of both trees.

Birch:

Elm:

(6) Karen spent 70 minutes watching TV. She watched a drama and a comedy. If the drama lasted for $\frac{3}{7}$ of the time, give the length of both programmes.

Drama:

Comedy:

(7) A parent and a child paid a total of £30 to visit a museum. The child price was £8 cheaper than the parent price. Find the price for each.

Child:

Parent:

(8) Sheba ate $\frac{2}{11}$ of the dog biscuits from her bowl. She ate 6 biscuits.

How many biscuits were in the bowl at the beginning?

Number of biscuits:

(9) A field has an area of 56 m^2. $\frac{3}{8}$ of the field has been planted with oats and the rest has been planted with wheat.
What area of the field has been planted with each?

Oats:

Wheat:

(10) Two lighthouses have a total height of 22 m. The tall lighthouse is 5 m taller than the short lighthouse. Find the height of each.

Short lighthouse

Tall lighthouse:

(11) A red money box and a yellow money box have a total of £12.50 in them. If the red money box has £1.50 more than the yellow money box, find out how much money is in each box.

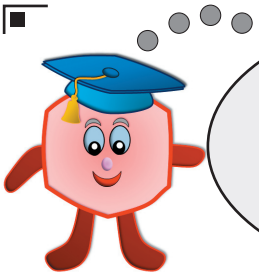
Yellow box:

Red box:

(12) Paul and Bob built a wall. There are a total of 27 rows of bricks in the wall. If Paul built 3 more rows than Bob, how many rows did each build?

Bob:

Paul:



Maths Homework this week is about:

Simple Formulae

Name:

Date:

Teacher:

Year 6

(1) Find the value of **3m + 8** when:

(a) m = 2

(b) m = 5

(c) m = 10

(d) m = 20

(e) m = 30

(2) Find the value of **7t + 9** when:

(a) t = 3

(b) t = 6

(c) t = 8

(d) t = 16

(e) t = 20

(3) Find the value of **12r + 11** when:

(a) r = 1

(b) r = 0.5

(c) r = 0.2

(d) r = 0.7

(e) r = 2

(4) Find the value of **5e - 4** when:

(a) e = 5

(b) e = 6

(c) e = 7

(d) e = 10

(e) e = 20

(5) Find the value of **9u - 7** when:

(a) u = 3

(b) u = 6

(c) u = 9

(d) u = 12

(e) u = 24

(6) Find the value of **6w - 14** when:

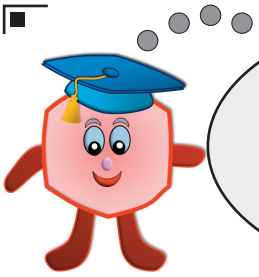
(a) w = 1

(b) w = 2

(c) w = 5

(d) w = 0.5

(e) w = 2.5



Maths Homework this week is about:

Number Sequences

Name:

Date:

Teacher:

Year 6

(1) Find the missing number in each of these number sequences and give the rule to get from one term to the next.

(a)	7		13	16	19	Rule: _____
(b)	1	9	17		33	Rule: _____
(c)		56	51	46	41	Rule: _____
(d)	32	39	46	53		Rule: _____
(e)	13	9		1	-3	Rule: _____
(f)	0	12	24		48	Rule: _____
(g)	27	16	5	-6		Rule: _____
(h)	-5		27	43	59	Rule: _____

(2) The first number and term to term rule for each sequence is given below.
Find the next four terms in each sequence.

(a)	Rule:	Add 9	7				
(b)	Rule:	Take 6	21				
(c)	Rule:	Add 15	2				
(d)	Rule:	Take 13	54				
(e)	Rule:	Take 7	8				
(f)	Rule:	Add 12	3				
(g)	Rule:	Add 21	-10				
(h)	Rule:	Take 21	100				

(3) Find the first five terms of the sequence with the rule **3n + 1**

n	1	2	3	4	5
3n + 1					

(4) Find the first five terms of the sequence with the rule **4n + 6**

n	1	2	3	4	5
4n + 6					

(5) Find the first five terms of the sequence with the rule **8n - 3**

n	1	2	3	4	5
8n - 3					

(6) Find the first five terms of the sequence with the rule **12n - 9**

n	1	2	3	4	5
12n - 9					

(7) Give the nth term rule for each of these sequences.

(a) 9, 11, 13, 15, 17 — n^{th} term:

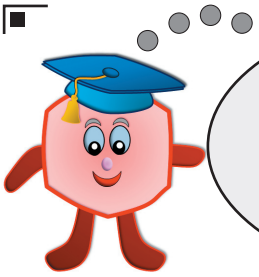
(b) 2, 6, 10, 14, 18 — n^{th} term:

(c) 9, 17, 25, 33, 41 — n^{th} term:

(d) 3, 12, 21, 30, 39 — n^{th} term:

(e) 15, 20, 25, 30, 35 — n^{th} term:

(f) 1, 8, 15, 22, 29 — n^{th} term:



Maths Homework this week is about:

Missing Number Problems

Name:

Date:

Teacher:

Year 6

(1) In each set of boxes, the number in the top box is found by adding the two numbers in the bottom boxes. Find the missing number in each set of boxes.

(a) [ ] / 15 | 21

(b) [ ] / 23 | 41

(c) [ ] / 29 | 31

(d) 104 / [ ] | 56

(e) 171 / 98 | [ ]

(f) 231 / [ ] | 105

(g) [ ] / 213 | 187

(h) 475 / [ ] | 283

(i) 548 / 222 | [ ]

(j) 999 / 272 | [ ]

(k) [ ] / 642 | 309

(l) 783 / [ ] | 322

(2) Find the missing number in each of the following calculations.

(a) 8 × [ ] = 72

(b) [ ] + 231 = 438

(c) [ ] 28 = 8

(d) 216 ÷ [ ] = 9

(e) 108 ÷ 9 = [ ]

(f) 191 - 63 = [ ]

(g) 93 + [ ] = 169

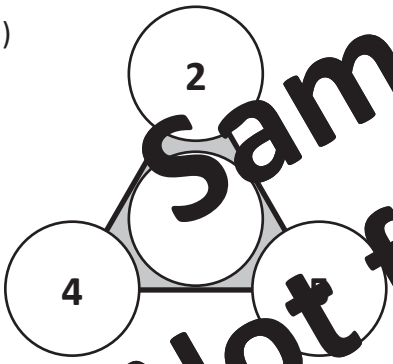
(h) [ ] ÷ 35 = 8

(i) [ ] × 15 = 105

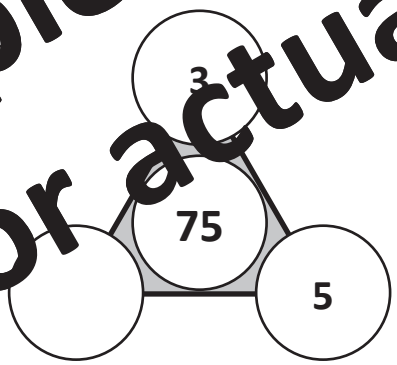
(j) 9[illegible] [ ] = 513

(3) The three numbers at the corners of each triangle are multiplied to give the number in the centre. Find the missing number in each question.

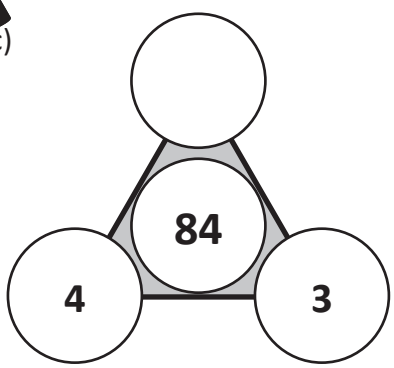
(a)



(b)



(c)



(4) Here is a missing number problem.

3 × ☐ + 4 = 19

Instead of the box, we could use a letter to stand for the missing number. For example:

3 × t + 4 = 19

Use the letter **t** instead of the box to write each of the following missing number problems, and then for each one, find the value of t.

(a) **5 × ☐ = 45**

(b) **7 × ☐ = 77**

(c) **2 × ☐ + 12 = 26**

(d) **3 × ☐ + 11 = 35**

(e) **5 × ☐ - 9 = 51**

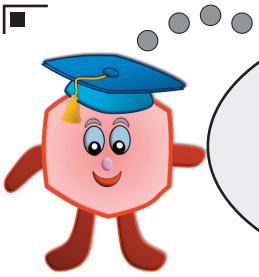
(f) **4 × ☐ - 7 = 13**

(g) **11 × ☐ + 6 = 105**

(h) **12 × ☐ - 10 = 74**

(i) **9 × ☐ + 6 = 114**

(j) **14 × ☐ - 8 = 62**



Maths Homework this week is about:
Equations with Two Unknowns, and Two Variable Combinations

Name:

Date:

Teacher:

Year 6

(1) Circle the pair of values which work in each question.

(a) 3 × ⬡ + 2 × △ = 16

⬡ = 2, △ = 4	⬡ = 5, △ = 1	⬡ = 4, △ = 2	⬡ = 1, △ = 5

(b) 4 × ⬡ + 3 × △ = 26

⬡ = 7, △ = 1	⬡ = 1, △ = 7	⬡ = 3, △ = 5	⬡ = 5, △ = 3

(c) 7 × ⬡ - 5 × △ = 32

⬡ = 3, △ = 2	⬡ = 6, △ = 2	⬡ = 2, △ = 6	⬡ = 2, △ = 6

(d) 6 × ⬡ + 2 × △ = 44

⬡ = 6, △ = 2	⬡ = 2, △ = 6	⬡ = 7, △ = 1	⬡ = 1, △ = 7

(e) 9 × ⬡ - 2 × △ = 15

⬡ = 4, △ = 3	⬡ = 7, △ = 5	⬡ = 5, △ = 7	⬡ = 3, △ = 1

(f) 8 × ⬡ - 4 × △ = 68

⬡ = 9, △ = 4	⬡ = 4, △ = 9	⬡ = 3, △ = 10	⬡ = 10, △ = 3

(2) Circle the pair of values which work in each equation.

(a) 6 × **a** + 2 × **b** = 28

a = 4, **b** = 4	**a** = 3, **b** = 5	**a** = 1, **b** = 4	**a** = 5, **b** = 3

(b) 7 × **a** - 4 × **b** = 6

a = 2, **b** = 2	**a** = 3, **b** = 3	**a** = 1, **b** = 1	**a** = 3, **b** = 5

(c) 4 × **a** + 9 × **b** = 42

a = 4, **b** = 4	**a** = 2, **b** = 4	**a** = 6, **b** = 2	**a** = 2, **b** = 6

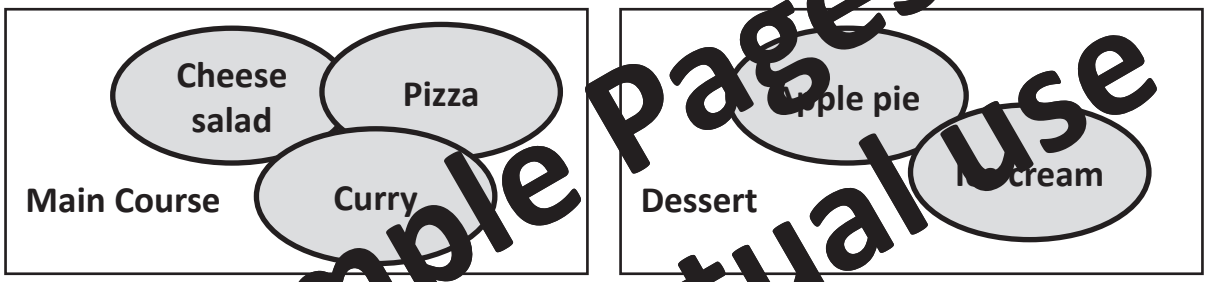
(d) 8 × **a** - 5 × **b** = 46

a = 10, **b** = 12	**a** = 6, **b** = 5	**a** = 5, **b** = 6	**a** = 12, **b** = 10

(e) 6 × **a** + 7 × **b** = 62

a = 1, **b** = 8	**a** = 8, **b** = 1	**a** = 10, **b** = 2	**a** = 2, **b** = 10

(3) A school canteen offered the following menu choices one day.

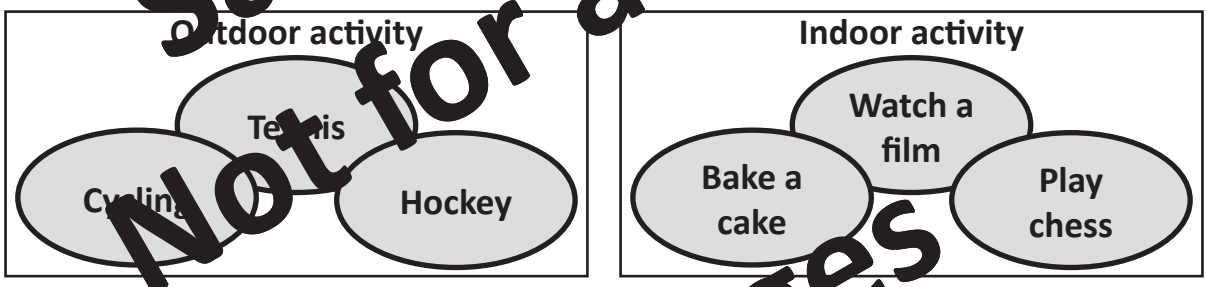


A pupil is allowed one **main course** and one **dessert**.

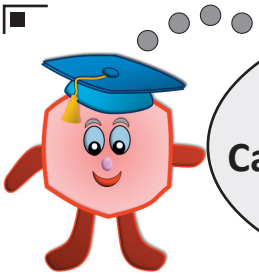
List, in the box on the right, all the possible combinations they could have.

(4) A school activity day offers pupils a choice of one **outdoor activity** followed by one **indoor activity**.

The following options are available:



List, in the box on the right, all the possible combinations of activities that a pupil could do.



Maths Homework this week is about:

Calculating and Converting Units of Length

Name:

Date:

Teacher:

Year 6

(1) Use the conversion fact below to find the missing approximate values in the following table.

	Miles	Kilometres
(a)		24
(b)	25	
(c)	40	
(d)		16
(e)		0.8
(f)	2.5	
(g)		12
(h)	100	
(i)	5.5	
(j)		14

5 miles
is approximately
8 kilometres

(2) Use these conversion facts to find the missing values in the following questions.

10 mm = 1 cm
100 cm = 1 m
1000 m = 1km

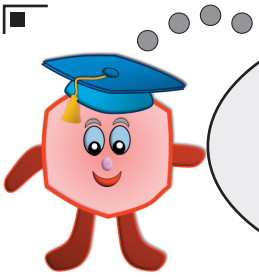
(a)	3 cm	=	mm	(k)	16 m	=	cm
(b)	7 cm	=	mm	(l)	0.5 m	=	cm
(c)	12 cm	=	mm	(m)	0.36 m	=	cm
(d)	26 cm	=	mm	(n)	0.04 m	=	cm
(e)	8.3 cm	=	mm	(o)	270 cm	=	m
(f)	7.6 cm	=	mm	(p)	48 cm	=	m
(g)	0.4 cm	=	mm	(q)	8000 m	=	km
(h)	6 mm	=	cm	(r)	500 m	=	km
(i)	58 mm	=	m	(s)	7 km	=	m
(j)	8 m	=	cm	(t)	0.6 km	=	m

(3) Say which would be the best metric unit to measure each of the items in the table below. (Choose from mm, cm, m, km).

	Item	Metric Unit
(a)	Length of a pencil	
(b)	Distance from the earth to the moon	
(c)	Length of a room	
(d)	Thickness of a matchstick	
(e)	Distance between two towns	
(f)	Width of a book	
(g)	Length of a bus	
(h)	Distance around a running track	
(i)	Thickness of an exercise book	
(j)	Length of a computer keyboard	

(4) This set of zoo direction signposts have accidentally had the distances to various animals given in km, cm, or mm. Convert each distance to metres.

(a)	Lions	2 500 cm	Lions		m
(b)	Tigers	12 500 cm	Tigers		m
(c)	Leopards	40 000 mm	Leopards		m
(d)	Cheetahs	320 000 mm	Cheetahs		m
(e)	Jaguars	8 200 cm	Jaguars		m
(f)	Elephants	620 000 mm	Elephants		m
(g)	Giraffes	0.5 km	Giraffes		m
(h)	Penguins	7 600 cm	Penguins		m
(i)	Sea Lions	0.055 km	Sea Lions		m
(j)	Gorillas	440 000 mm	Gorillas		m
(k)	Hyenas	0.76 km	Hyenas		m
(l)	Wolves	265 000 mm	Wolves		m



Maths Homework this week is about:

Using Measurements (Mass and Volume)

Name:

Date:

Teacher:

Year 6

(1) Find the missing values in the following table.

	Grams	Kilograms
(a)		3
(b)		5.65
(c)	3 [illegible]	
(d)		0.027
(e)	86 000	
(f)	49 300	
(g)		78.24
(h)	928 000	
(i)		3.02
(j)	60	

1000 g equals **1 kg**

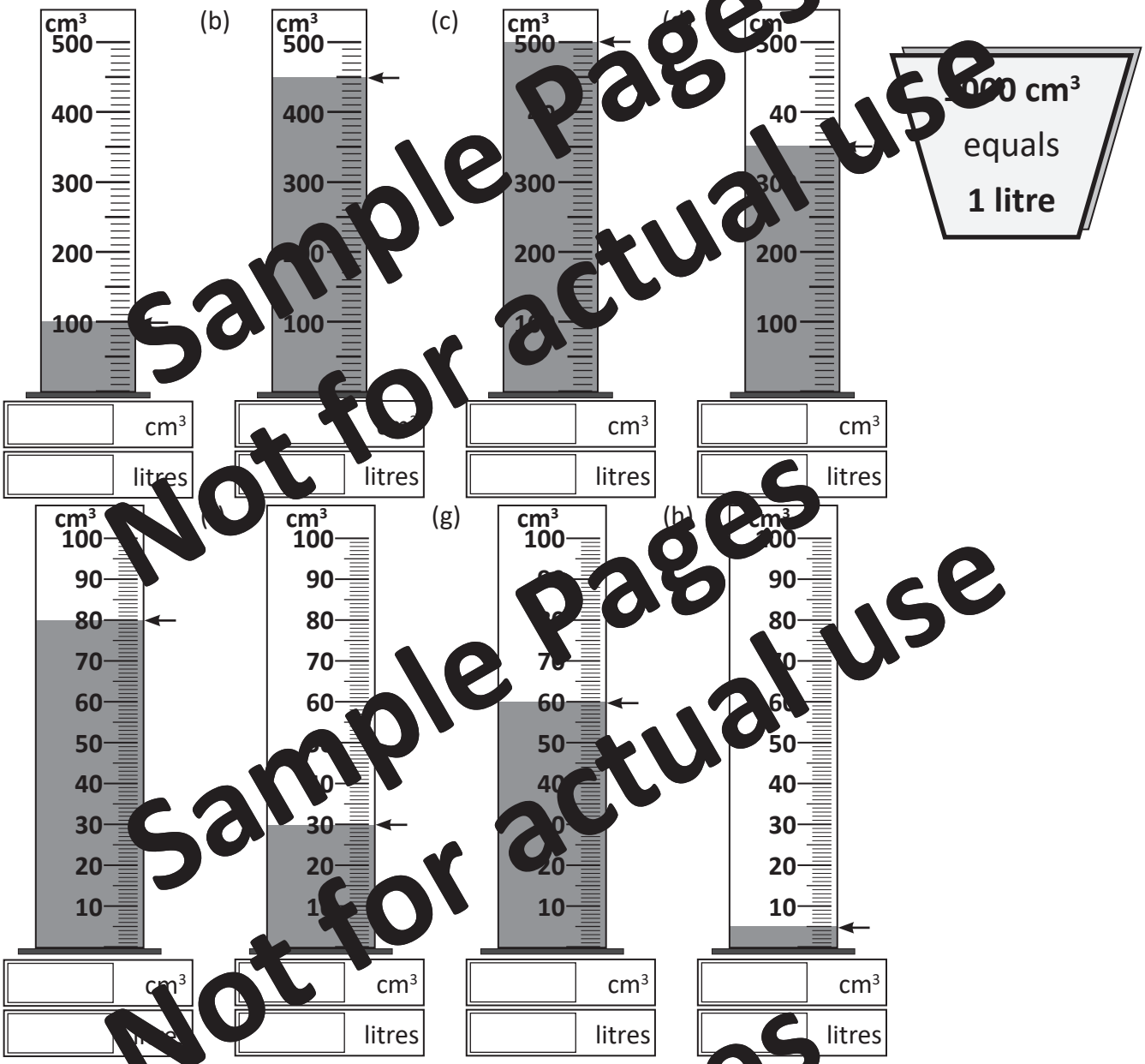
(2) Give each of these weights as a decimal value in kilograms.

(a)	2	kilograms	460	grams	=		kg
(b)	7	kilograms	823	grams	=		kg
(c)	6	kilograms	54	grams	=		kg
(d)	14	kilograms	620	grams	=		kg
(e)	23	kilograms	756	grams	=		kg
(f)	147	kilograms	13	grams	=		kg

(3) Give each of these weights in kilograms and grams.

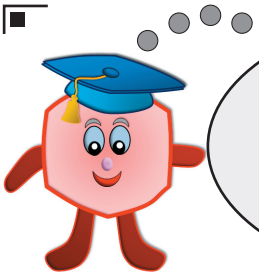
(a)	3.[illegible]	kg	=		kilograms		grams
(b)	4.02	kg	=		kilograms		grams
(c)	6.054	kg	=		kilograms		grams
(d)	39.08	kg	=		kilograms		grams
(e)	76.024	kg	=		kilograms		grams
(f)	23.14	kg	=		kilograms		grams

(4) Give the reading, in cm³, on each of these measuring cylinders, and then convert each value into litres.



(5) Find the missing values in this table.

(a)		cm³	6	litres
(b)		cm³	1	litres
(c)	3 700	cm³		litres
(d)		cm³	9.4	litres
(e)	5 260	cm³		litres
(f)		cm³	8.103	litres
(g)	12 060	cm³		litres
(h)	125 000	cm³		litres
(i)		cm³	0.8	litres
(j)	43	cm³		litres



Maths Homework this week is about:

Area and Perimeter of Parallelograms and Triangles

Name:

Date:

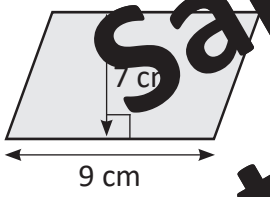
Teacher:

Year 6

(1) Find the area of each of these parallelograms.

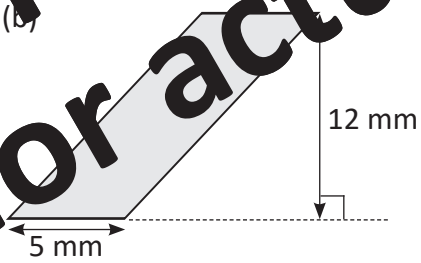
The diagrams on this sheet are not drawn to scale.

(a)



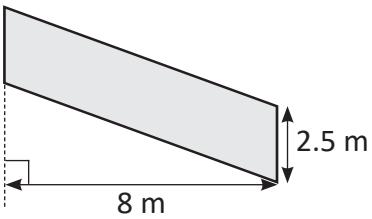
Area = _____

(b)



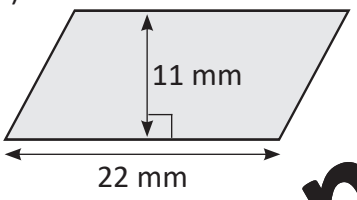
Area = _____

(c)



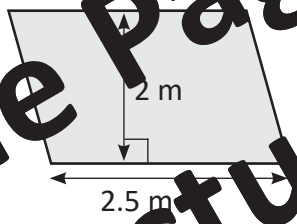
Area = _____

(d)



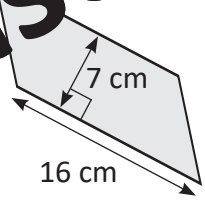
Area = _____

(e)



Area = _____

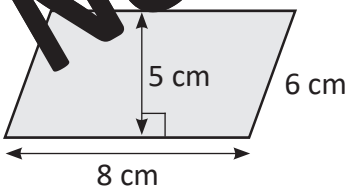
(f)



Area = _____

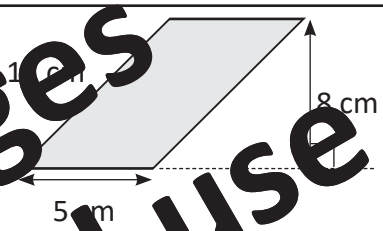
(2) These parallelograms all have an area of 40cm³, but they have different perimeters.
Find the perimeter of each one.

(a)



Perimeter = _____

(b)

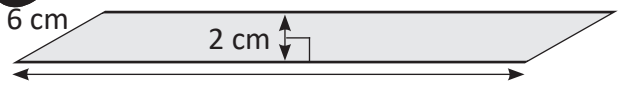


Perimeter = _____

(c)

Perimeter = _____

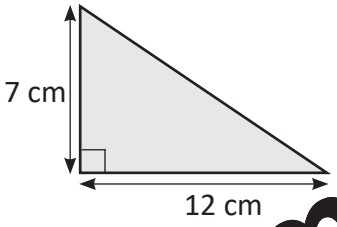
(d)



Perimeter = _____

(3) Find the area of each of these triangles.

(a)

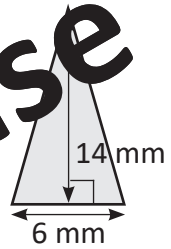


Area = _____

(b)

Area = _____

(c)

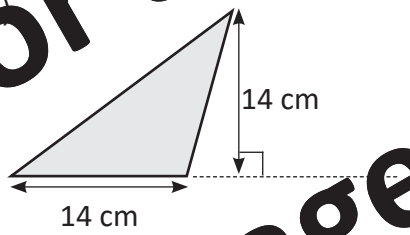


Area = _____

(d)

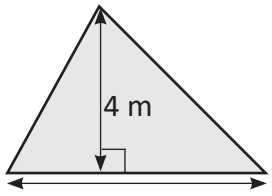
Area = _____

(e)



Area = _____

(f)



Area = _____

(4) This shape is made up of right angled triangles.
By finding the area of each triangle, find the total area of the complete shape.

Triangle **A**

Area = _____

Triangle **B**

Area = _____

Triangle **C**

Area = _____

Triangle **D**

Area = _____

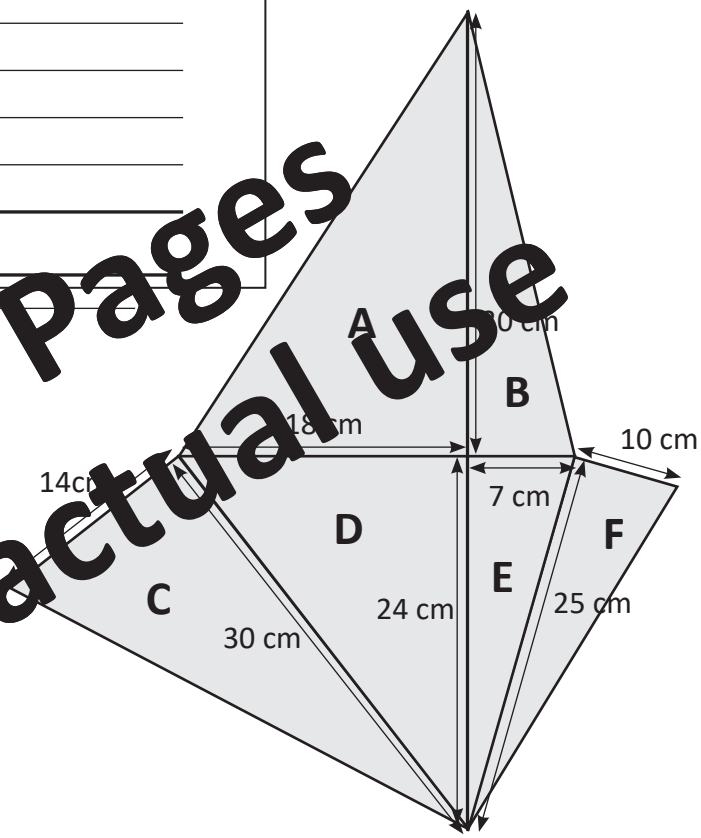
Triangle **E**

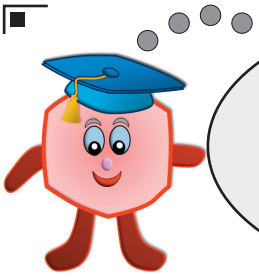
Area = _____

Triangle **F**

Area = _____

Total area





Maths Homework this week is about:

Volume of Cubes and Cuboids

Name:

Date:

Teacher:

Year 6

(1) Find the volume of each of these cubes.

The diagrams on this sheet are not drawn to scale.

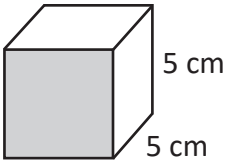
(a)

Volume = _____

(b)

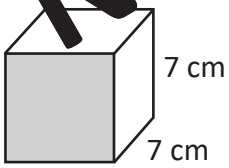
Volume = _____

(c)



Volume = _____

(d)

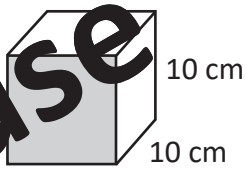


Volume = _____

(e)

Volume = _____

(f)

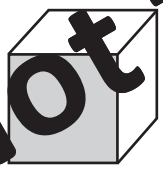


Volume = _____

(2) These cubes each have side lengths which are whole numbers. You are given the volume for each one. Find the side length of each.

(a)

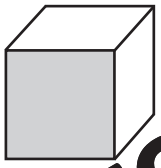
Volume **64 cm³**



Each side length _____

(b)

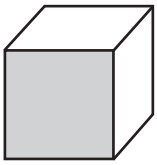
Volume **1 cm³**



Each side length _____

(c)

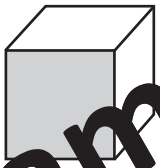
Volume **216 cm³**



Each side length _____

(d)

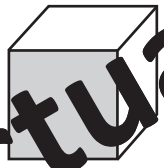
Volume **8 000 cm³**



Each side length _____

(e)

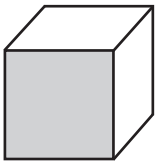
Volume **512 cm³**



Each side length _____

(f)

Volume **27 000 cm³**



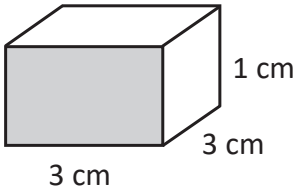
Each side length _____

(3) Find the volume of a cube with sides of length 1.5 cm

Volume = _____

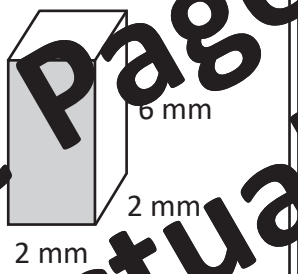
(4) Work out the volume of each of these cuboids.

(a)



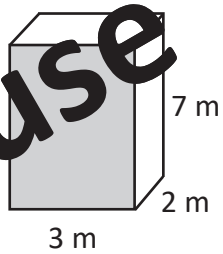
Volume = _____

(b)



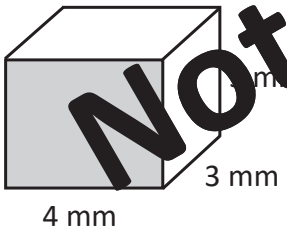
Volume = _____

(c)



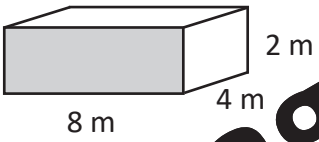
Volume = _____

(d)



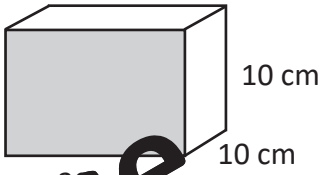
Volume = _____

(e)



Volume = _____

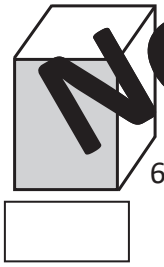
(f)



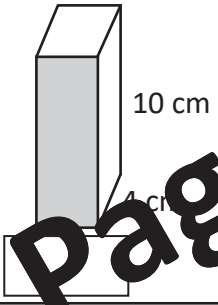
Volume = _____

(5) Find the length of the missing side in each of these cuboids.

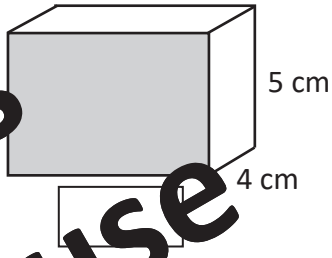
(a) **Volume = 180 cm³**



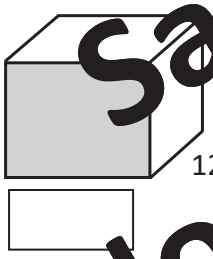
(b) **Volume = 80 cm³**



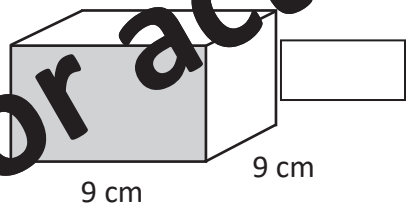
(c) **Volume = 140 cm³**



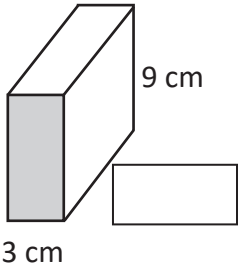
(d) **Volume = 1440 cm³**

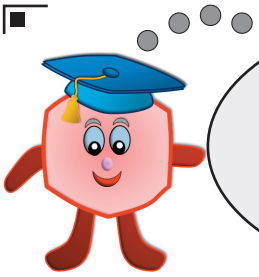


(e) **Volume = 486 cm³**



(f) **Volume = 297 cm³**





Maths Homework this week is about:

Drawing 2D Shapes

Name:

Date:

Teacher:

Year 6

You will need a pencil, ruler and protractor.

(1) (a) Draw an equilateral triangle with sides of length 5 cm.

(b) Label the angles and side lengths on your drawing.

(2) (a) Draw a rectangle which has a base of 7 cm and a height of 4 cm.

(b) Label the angles and sides on your drawing.

(3) (a) Draw an isosceles triangle with a base of length 3.5 cm and two equal angles at the base of 70°.

(b) Label the base length and all of the angles.

(c) Measure and label the two equal sides.

(4) (a) Draw an isosceles triangle with a base of length 12 cm and two equal angles at the base of 35°.

(b) Label the base length and all of the angles.

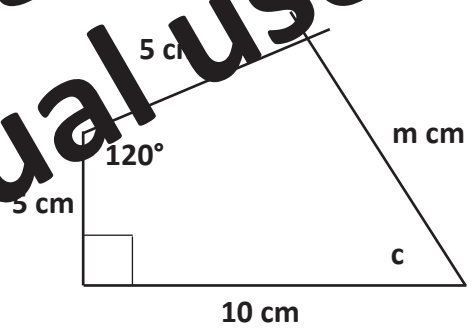
(c) Measure and label the two equal sides.

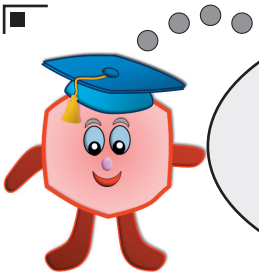
(5) (a) Use your ruler and protractor to make an accurate drawing of the shape shown in this sketch.

(b) Label the given angles and side lengths on your diagram.

(c) Measure the length of side m.

(d) Measure the size of angle c.





Maths Homework this week is about:

3D Shapes and Nets

Name:

Date:

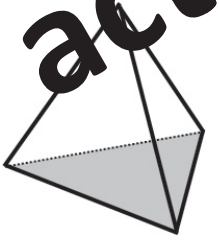
Teacher:

Year 6

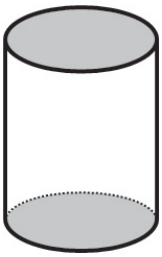
(1) Give the name of each of the following 3D shapes.

(a)

(b)



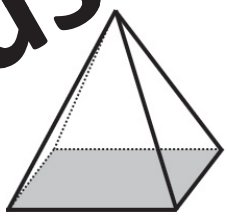
(c)



(d)

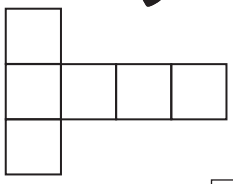
(e)

(f)



(2) Put a tick or cross next to each of these diagrams to indicate whether or not it is the net of a cube.

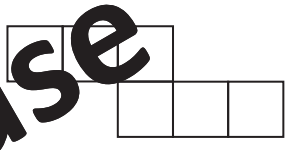
(a)



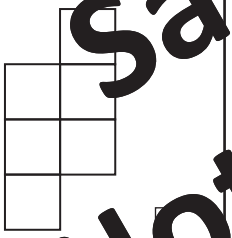
(b)

(c)

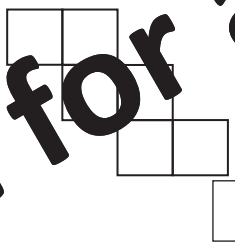
(d)



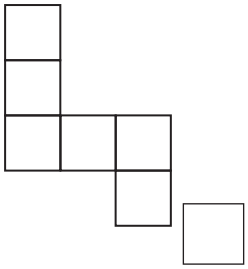
(e)



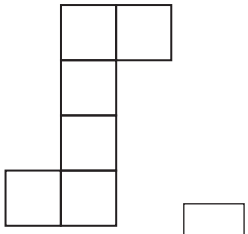
(f)



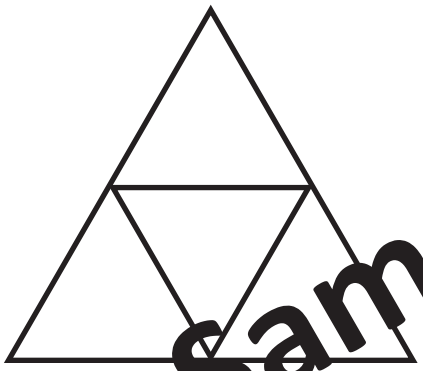
(g)



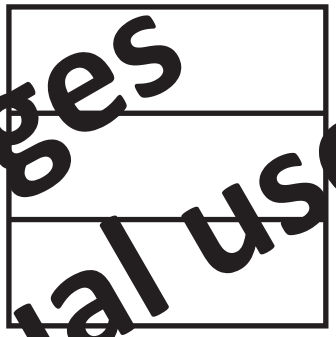
(h)



(3) Here is one possible net for a tetrahedron. Sketch the other possible nets for a tetrahedron.

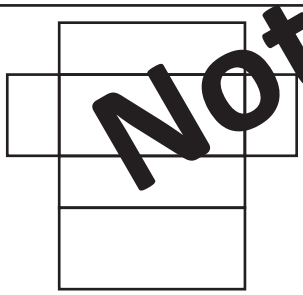


(4) Complete this net for a triangular prism.
(There are a few different ways you could do this).



(5) Name the solid which can be made from each of the following nets.

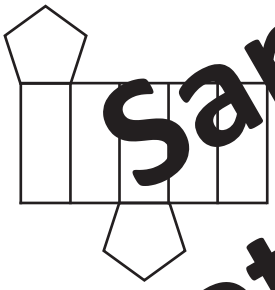
(a)



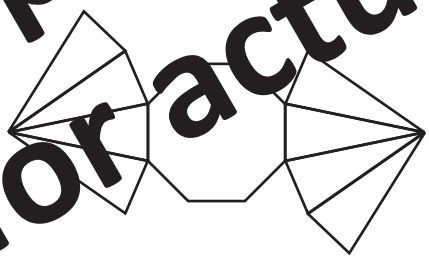
(b)

(c)

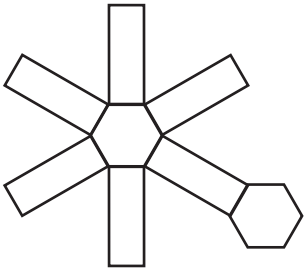
(d)

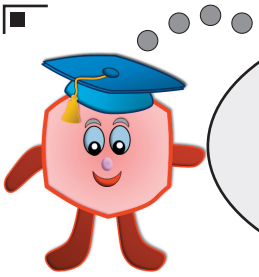


(e)



(f)





Maths Homework this week is about:

Angles in Triangles, Quadrilaterals and Polygons

Name:

Date:

Teacher:

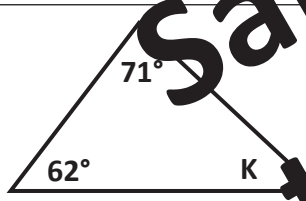
Year 6

Angles in a Triangle add up to 180°

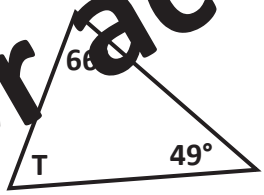
The diagrams on this sheet are not drawn to scale.

(1) Find the missing angle in each of the following triangles.

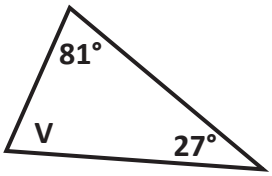
(a)



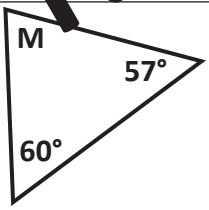
(b)



(c)



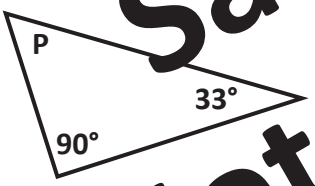
(d)



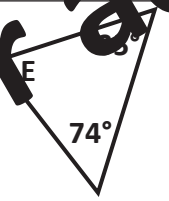
(e)

(f)

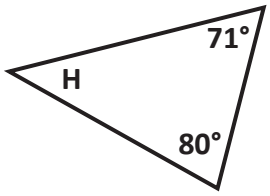
(g)



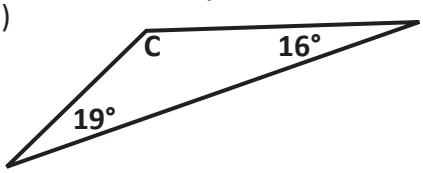
(h)



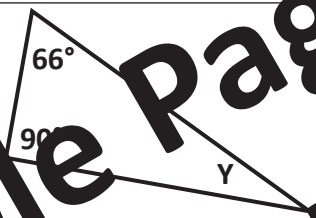
(i)



(j)

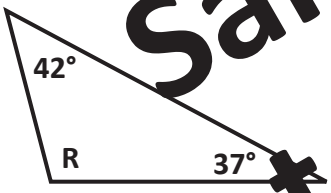


(k)



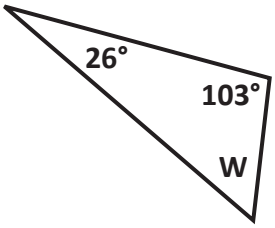
(l)

(m)



(n)

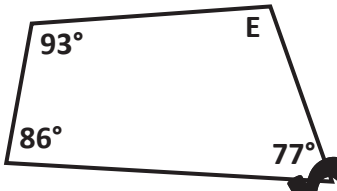
(o)



Angles in a Quadrilateral add up to 360°

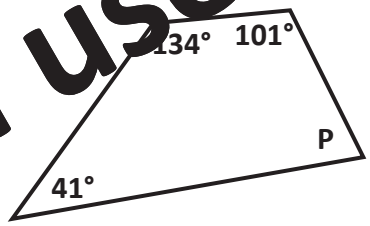
(2) Find the missing angle in each of the following quadrilaterals.

(a)

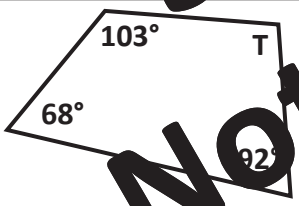


(b)

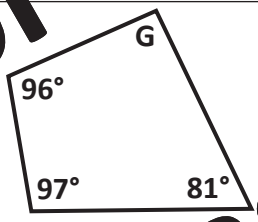
(c)



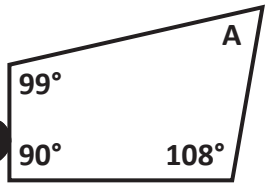
(d)



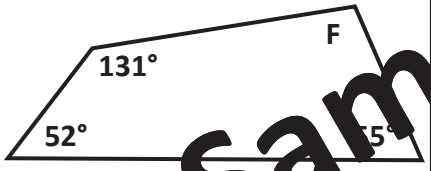
(e)



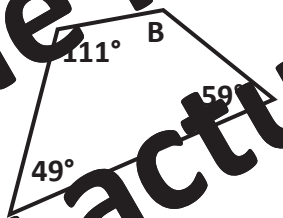
(f)



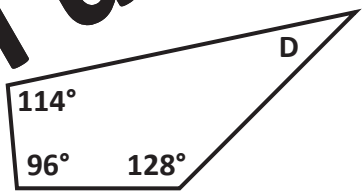
(g)



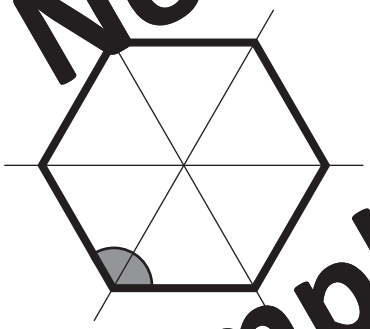
(h)



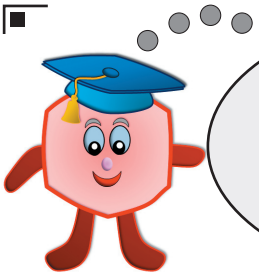
(i)



(3) This regular hexagon can be split into six equilateral triangles.
What is the size of each angle inside the regular hexagon?



(4) The exterior angle of a regular pentagon is 72°.
What is the size of each angle inside the regular pentagon?



Maths Homework this week is about:

Circles

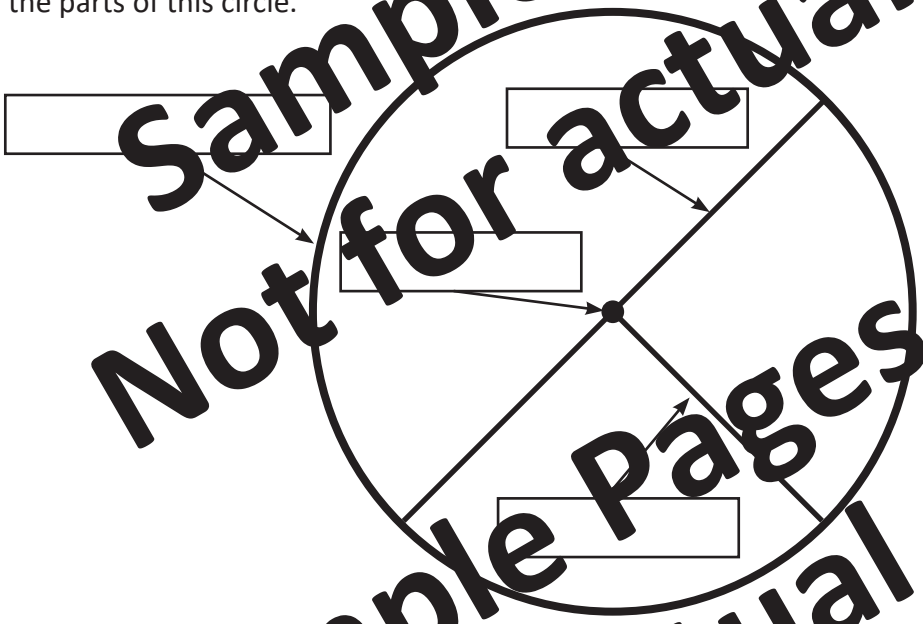
Name:

Date:

Teacher:

Year 6

(1) Label the parts of this circle.



(2) Find the diameter for each circle with each radius in the following table.

	Radius	Diameter
(a)	4 cm	
(b)	12 mm	
(c)	20 mm	
(d)	17 cm	
(e)	4.2 cm	
(f)	7.7 m	
(g)	29 m	
(h)	2.25 cm	
(i)	0.9 m	
(j)	78.7 cm	
(k)	0.63 m	
(l)	139 cm	

(3) Find the radius for circles with each diameter in the following table

	Diameter	Radius
(a)	4 m	
(b)	94 m	
(c)	132 m	
(d)	174 mm	
(e)	218 cm	
(f)	868 cm	
(g)	19.6 m	
(h)	39.4 cm	
(i)	752 mm	
(j)	15.4 cm	
(k)	0.94 m	
(l)	19.2 cm	

(4) Measure the diameter and radius of each of the following circles. GIve your answers in millimetres.

(a)

Diameter:

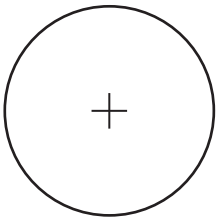
Radius:

(b)

Diameter:

Radius:

(c)



Diameter:

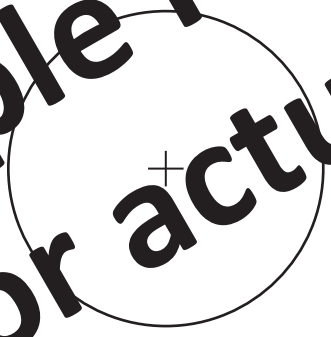
Radius:

(d)

Diameter:

Radius:

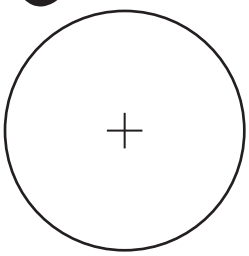
(e)



Diameter:

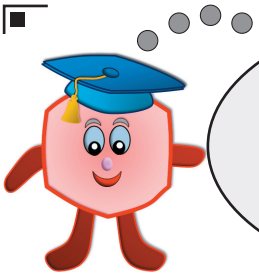
Radius:

(f)



Diameter:

Radius:



Maths Homework this week is about:

Angles and Lines

Name:

Date:

Teacher:

Year 6

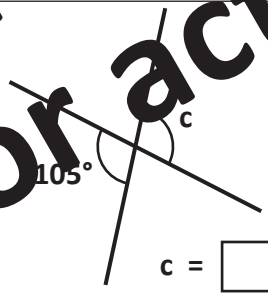
(a)

For all the questions on this sheet, find the angles labelled with the letters.

(1)

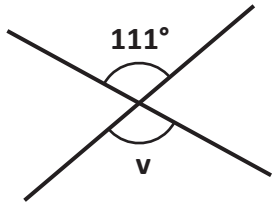
g =

(2)



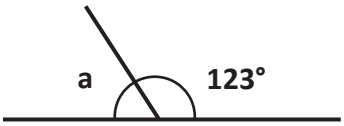
c =

(3)



v =

(4)



a =

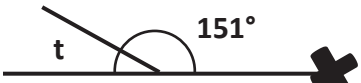
(5)

n =

(6)

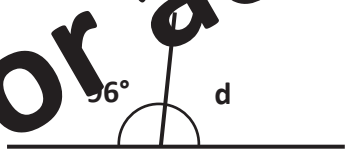
r =

(7)



t =

(8)

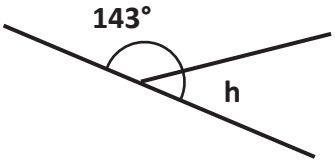


d =

(9)

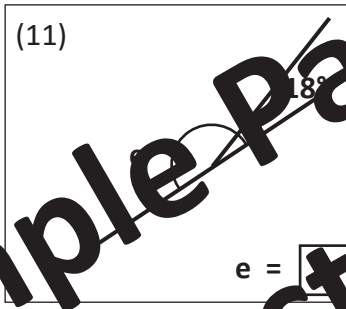
w =

(10)



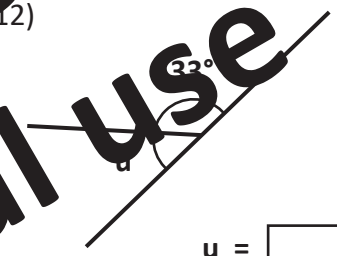
h =

(11)



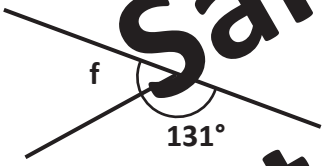
e =

(12)



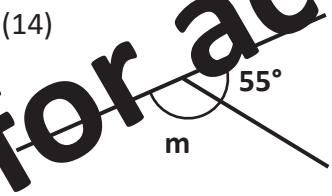
u =

(13)



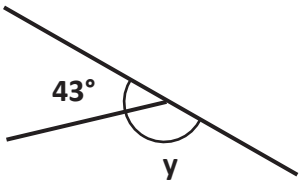
f =

(14)



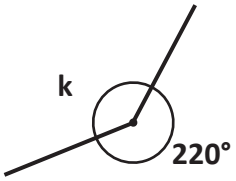
m =

(15)



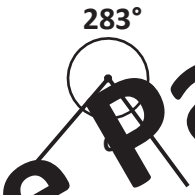
y =

(16)



k =

(17)



d =

(18)

p =

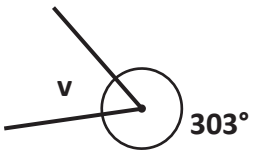
(19)

c =

(20)

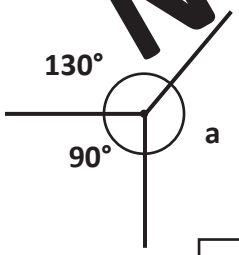
r =

(21)



v =

(22)

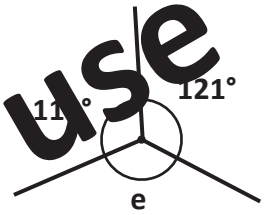


a =

(23)

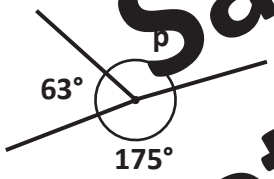
y =

(24)

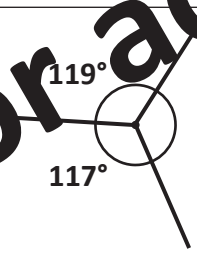


e =

(25)

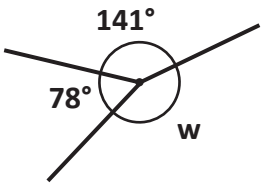


(26)



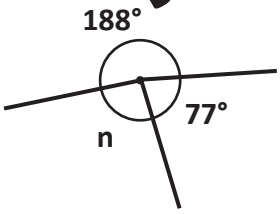
u =

(27)



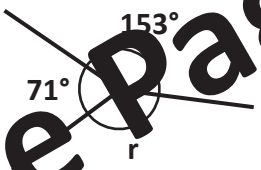
w =

(28)



n =

(29)

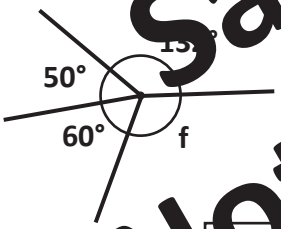


r =

(30)

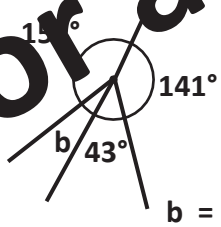
h =

(31)



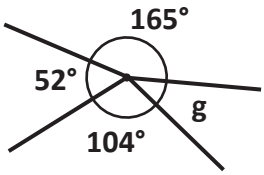
f =

(32)

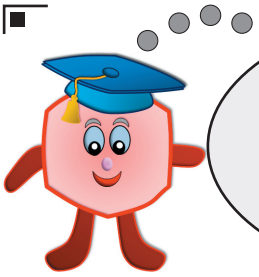


b =

(33)



g =



Maths Homework this week is about:

Co-ordinates

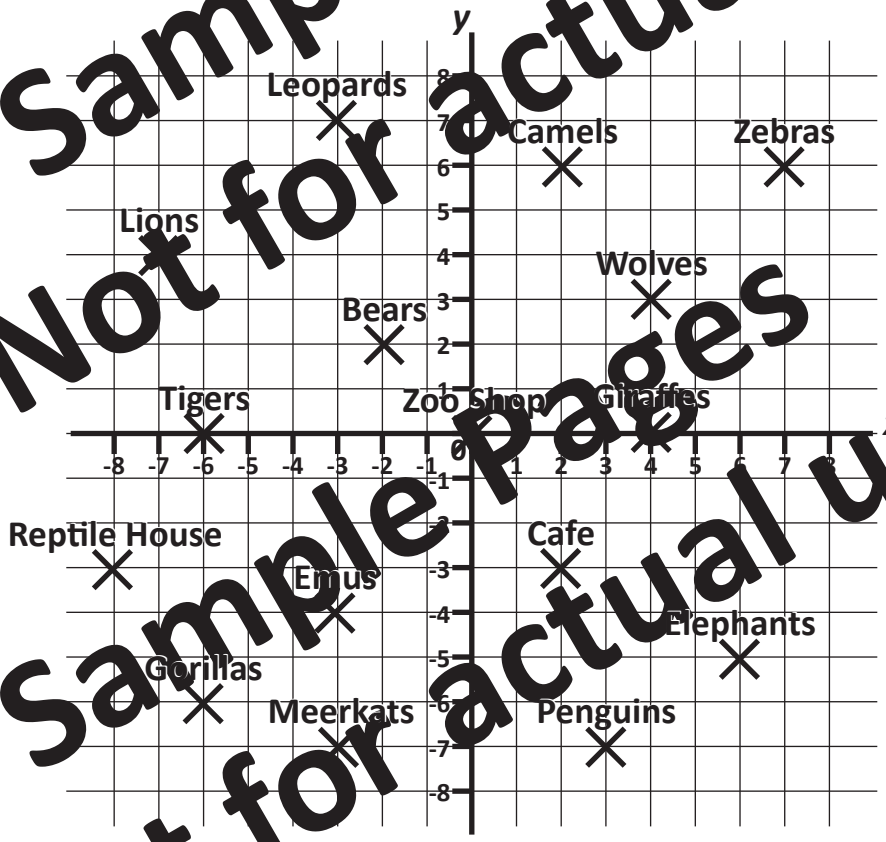
Name:

Date:

Teacher:

Year 6

(1) Give the co-ordinates of each place on the zoo plan.

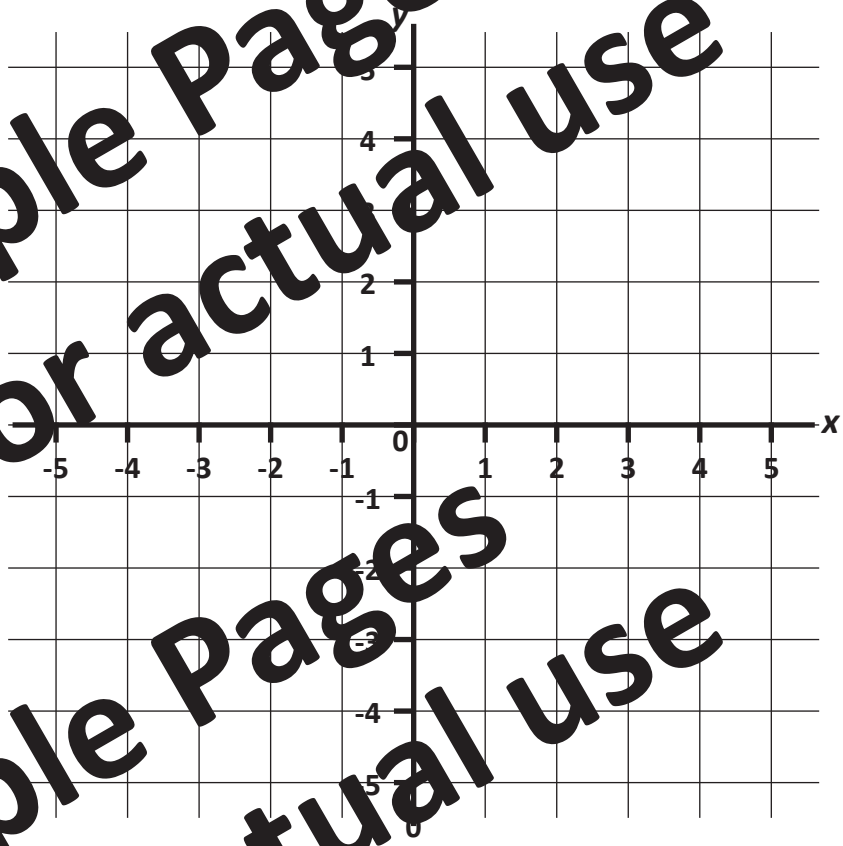


	Location	Co-ordinates
(a)	Zoo Shop	
(b)	Elephants	
(c)	Lions	
(d)	Cafe	
(e)	Zebras	
(f)	Gorillas	
(g)	Camels	
(h)	Penguins	

	Location	Co-ordinates
(i)	Tigers	
(j)	Leopards	
(k)	Wolves	
(l)	Emus	
(m)	Giraffes	
(n)	Bears	
(o)	Reptile House	
(p)	Meerkats	

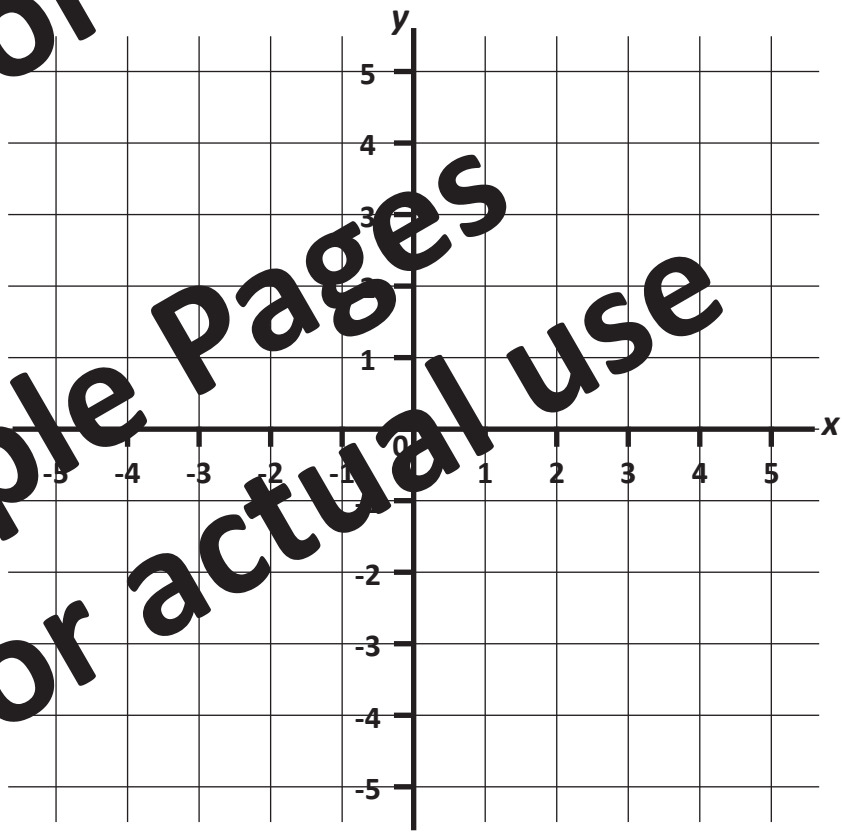
(2) Plot each of the following co-ordinates, in order, on the set of axes below, and join them in the order you plotted them to make a shape.

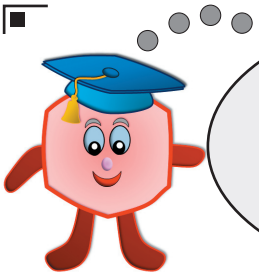
(-3, 3)
(1, 4)
(1, 2)
(4, 2)
(1, -1)
(3, -1)
(-3, -4)
(-2, -2)
(-4, 1)
(-5, 3)
then back to
(-3, 3)



(3) Plot each of the following co-ordinates, in order, on the set of axes below, and join them in the order you plotted them to make a shape.

(-4, 4)
(-2, 4)
(-1, 2)
(0, 4)
(2, 4)
(1, 1)
(2, -2)
(0, -2)
(-1, 0)
(-2, -2)
(-4, -2)
(3, 1)
then back to
(-4, 4)





Maths Homework this week is about:

Translating and Reflecting Shapes

Name:

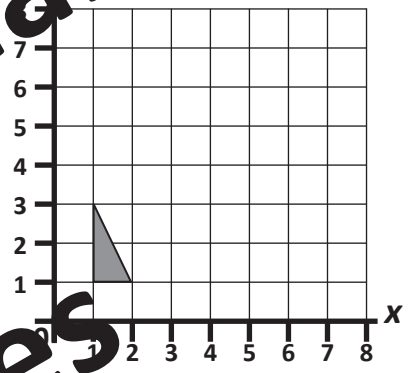
Date:

Teacher:

Year 6

(1) (a) Translate this shape

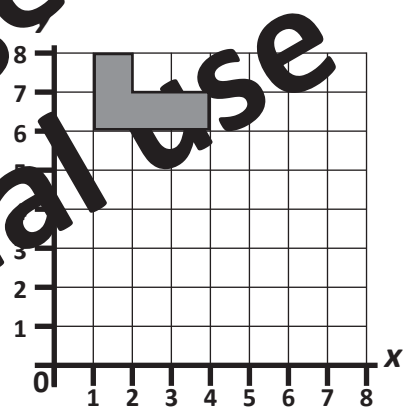
6 RIGHT
3 UP



(b) Give the translation which would get from your answer back to the starting shape.

(2) (a) Translate this shape

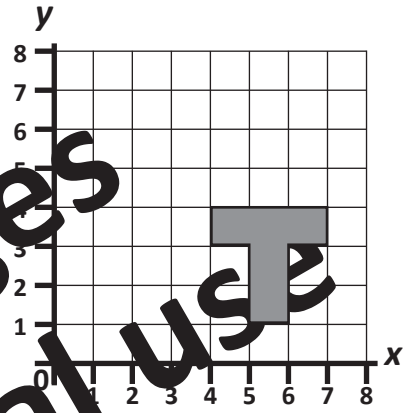
4 RIGHT
2 DOWN



(b) Give the translation which would get from your answer back to the starting shape.

(3) (a) Translate this shape

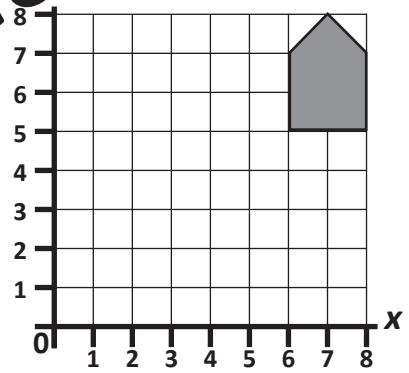
3 LEFT
2 UP



(b) Give the translation which would get from your answer back to the starting shape.

(4) (a) Translate this shape

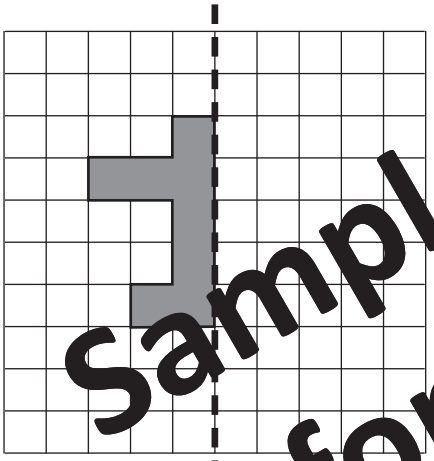
5 LEFT
5 DOWN



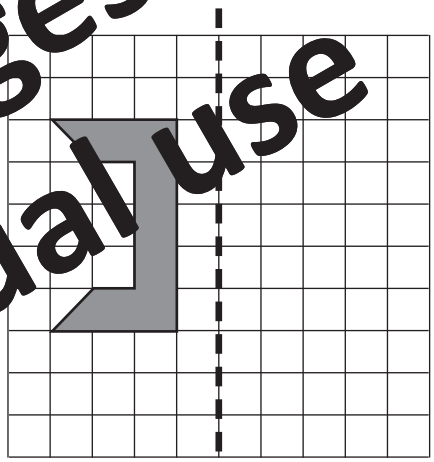
(b) Give the translation which would get from your answer back to the starting shape.

(5) Reflect each shape in the dotted mirror line.

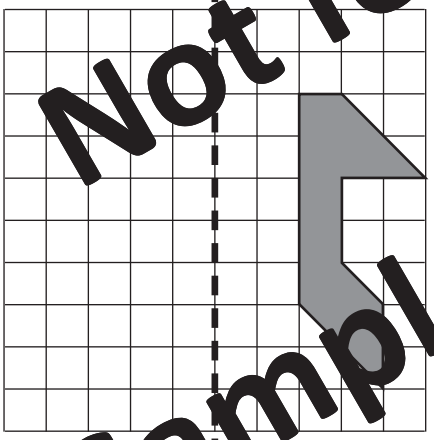
(a)



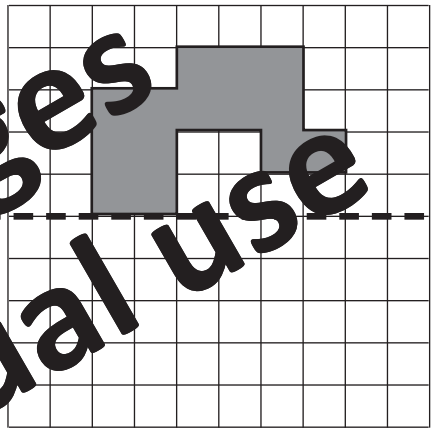
(b)



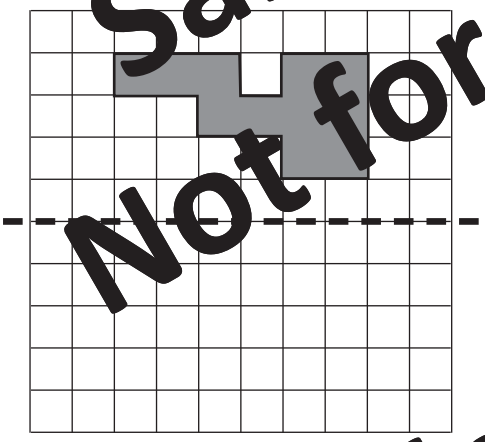
(c)



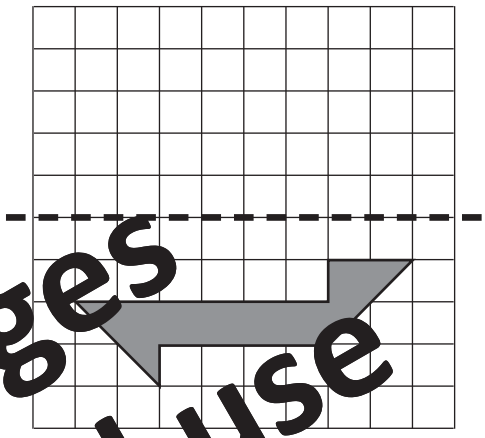
(d)



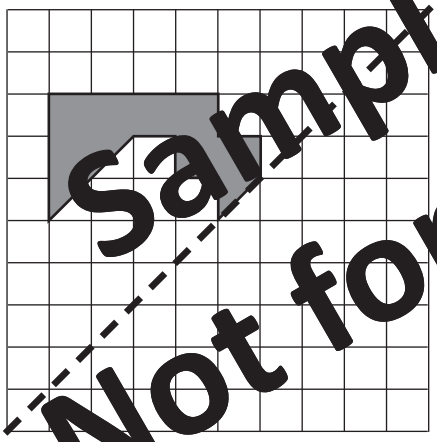
(e)



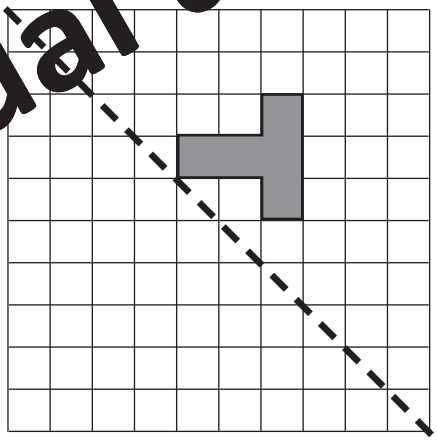
(f)

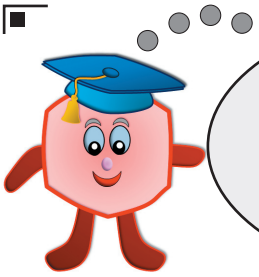


(g)



(h)





Maths Homework this week is about:

Pie Charts and Line Graphs

Name:

Date:

Teacher:

Year 6

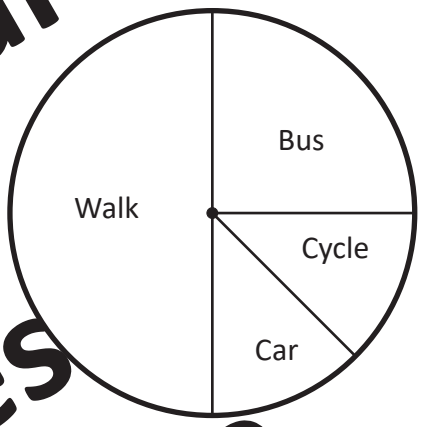
(1) This pie chart shows the method used by 30 pupils to get to school.

(a) How many pupils walked?

(b) How many pupils came by bus?

(c) How many pupils cycled?

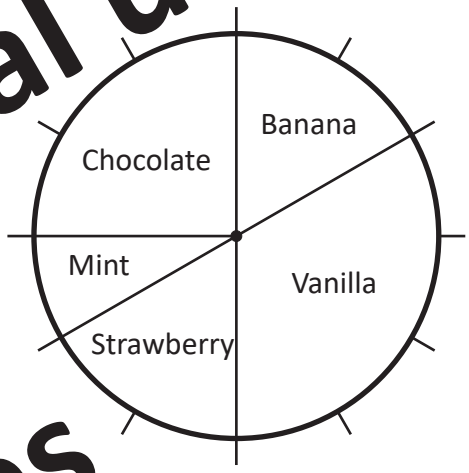
(d) How many pupils came by car?



(2) This pie chart shows the favourite ice cream flavour of 60 pupils.

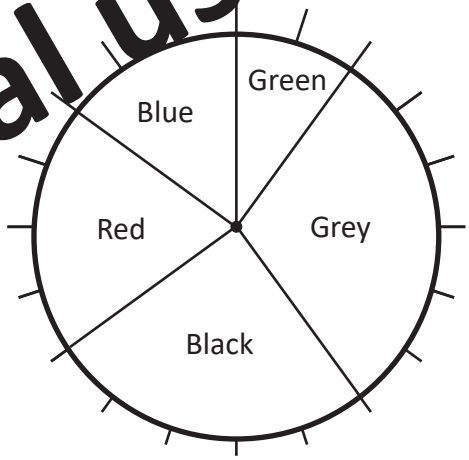
Use the information in the pie chart to fill in the table to show the number of people who chose each flavour.

Flavour	Number of people
Chocolate	
Mint	
Strawberry	
Vanilla	
Banana	



(3) Here is a pie chart to show the number of different colours of cars in a car park.
There were 100 cars altogether.
Use the information in the pie chart to fill in this table to show the number of cars of each colour.

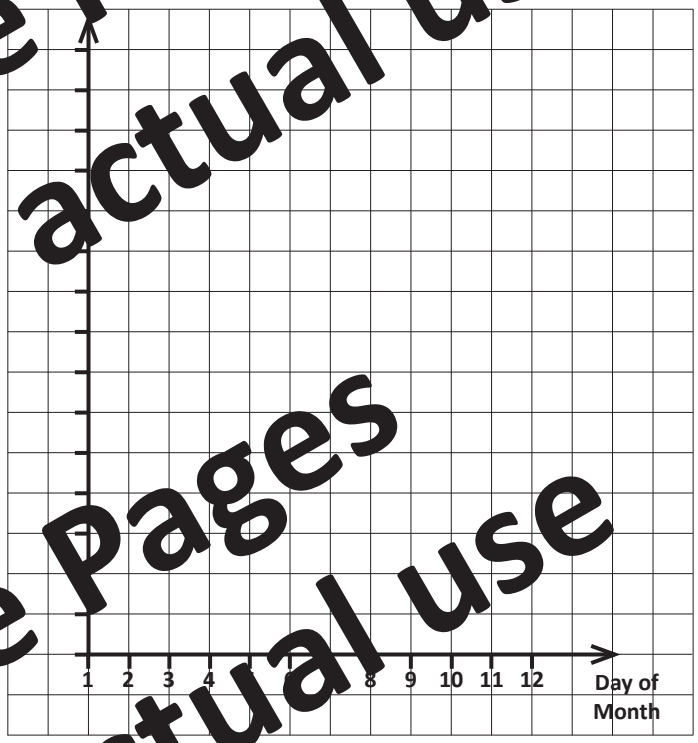
Colour	Number of cars
Green	
Grey	
Black	
Red	
Blue	



(4) The table below shows the number of people who visited a museum on the first 12 days of one month.

Draw a line graph to show this data.

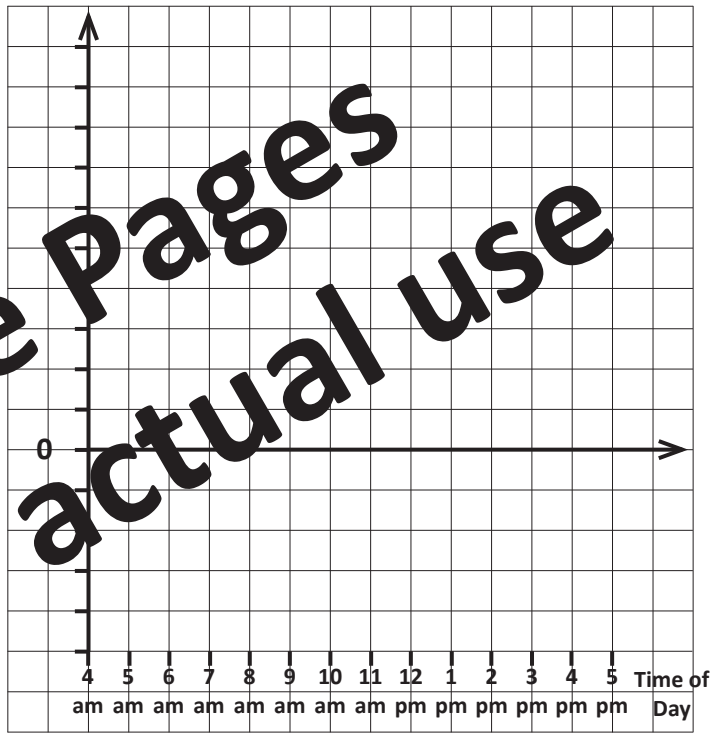
Day of Month	Number of People
1	140
2	1[illegible]
3	20
4	40
5	60
6	70
7	0
8	90
9	120
10	110
11	130
12	100

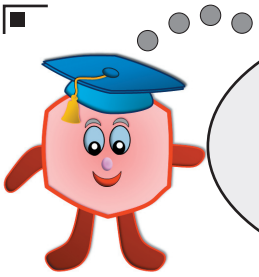


(5) The table below shows the temperature at various times during one winter day.

Draw a line graph to show this data.

Time of Day	Temperature (°C)
4 am	-5
5 am	-5
6 am	-4
7 am	-3
8 am	-3
9 am	-1
10 am	0
11 am	1
12 pm	3
1 pm	4
2 pm	6
3 pm	6
4 pm	7
5 pm	9





Maths Homework this week is about:

Mean Averages

Name:

Date:

Teacher:

Year 6

(1) The time, in minutes, a pupil spent on homework during five nights were:

20 minutes, **22** minutes, **18** minutes, **36** minutes, **24** minutes

Find the mean number of minutes spent on homework for the five nights.

Mean time:

(2) A runner ran over 200 races one week. The times in seconds for each race were:

58 seconds, **62** seconds, **65** seconds, **59** seconds

Find the mean time in seconds for the four races.

Mean time:

(3) A pupil scored the following scores out of 20 on the last six maths tests:

18, 14, 17, 19, 13, 15

Find the mean score for these six tests.

Mean score:

(4) The height and weight of five friends are given below:

Height:	**146 cm**	**152 cm**	**139 cm**	**144 cm**	**154 cm**
Weight:	**32 kg**	**35 kg**	**41 kg**	**37 kg**	**46 kg**

Find the mean height and mean weight for this group of friends.

Mean Height:

Mean Weight:

(5) The temperatures at midday for each day of one week were as follows:

14°C, **17°C**, **16°C**, **19°C**, **13°C**, **12°C**, **14°C**

Find the mean temperature for the week.

Mean temperature: _____

(6) Six friends get the following amounts of pocket money per week:

£4.50, **£5.50**, **£6.00**, **£4.00**, **£2.50**, **£7.50**

Find the mean amount of pocket money.

Mean amount: _____

(7) The heights of four trees in a garden are:

1.5 m, **1.25 m**, **1.36 m**, **1.13 m**

Find the mean height of these four trees.

Mean height: _____

(8) The number of sweets in eight boxes of sweets are:

36, **33**, **38**, **36**, **39**, **31**, **32**, **35**

Find the mean number of sweets per box.

Mean number: _____

(9) The mean of three numbers is **15**. Two of the numbers are **12** and **13**.
What is the third number?

Third number: _____

(10) Three of the four test scores (out of 10) for a pupil are **7**, **9** and **6**. The mean score for all four tests is **8**.
What score did the pupil get in the fourth test?

Fourth score: _____

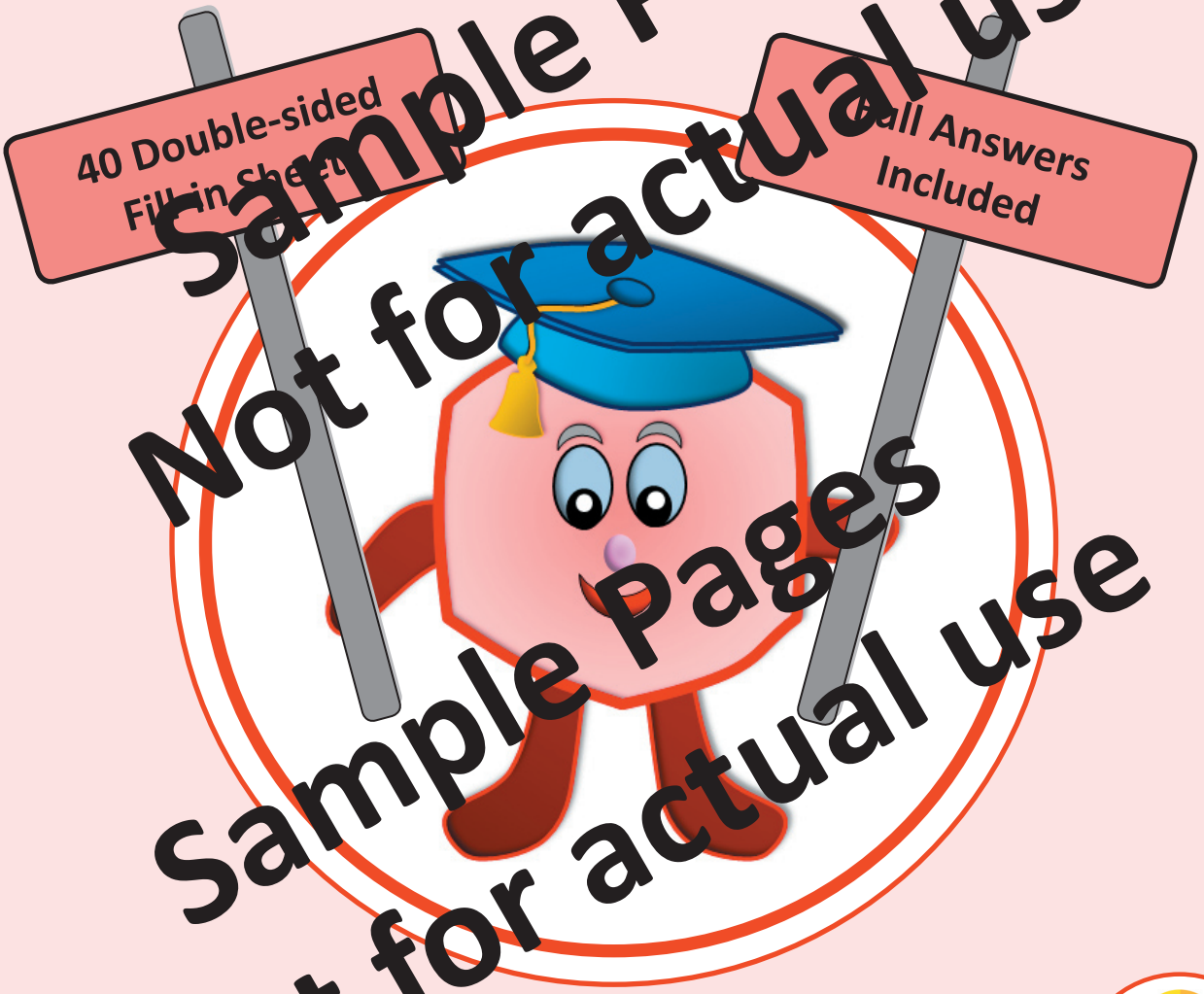
Maths Topics

Homework Sheets

for Year 6

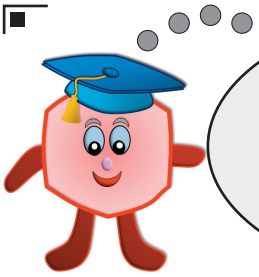
by

Brian Taylor



Answers

2021 Edition



Maths Homework this week is about:

Numbers and Digit Values

Answers

Date:

Teacher:

Year 6

(1) Fill in the missing boxes in this table.

	Number in Digits	Number in Words
(a)	948	Nine hundred and forty eight
(b)	3 126	Three thousand, one hundred and twenty six
(c)	5 092	Four thousand and ninety two
(d)	16 487	Sixteen thousand, four hundred and eighty seven
(e)	10 375	Ten thousand, three hundred and seventy five
(f)	126 429	One hundred and twenty six thousand, four hundred and twenty nine
(g)	792 043	Seven hundred and ninety two thousand and forty three
(h)	6 824 356	Six million, eight hundred and twenty four thousand, three hundred and fifty six
(i)	4 106 038	Four million, one hundred and six thousand and thirty eight
(j)	9 210 040	Nine million, two hundred and ten thousand and forty

(2) (a) Put these numbers in order, starting with the lowest.

7 016	28 956	1 486	27 272	3 914
1 486	3 914	7 016	27 272	28 956

(b) Put these numbers in order, starting with the highest.

11 026	28 534	30 106	9 487	12 009
30 106	28 534	12 009	11 026	9 487

(3) Circle the largest number in each box.

(a)

89 463	80 009
24 631	72 18[illegible]
9 746	16 438

(b)

260 497	263 999
264 387	39 465
128 437	90 909

(c)

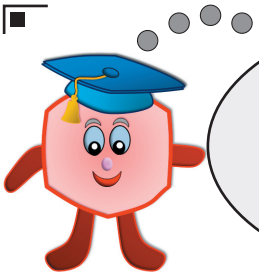
98 463	806 438
809 899	384 627
725 476	819 364

(4) Give, in words, the value of the underlined digit in each number below.

	Number	Value of Underlined Digit
eg:	638 497	Four hundred
(a)	2 738	Thirty
(b)	56 921	Nine hundred
(c)	308 178	Seventy
(d)	395 206	Five thousand
(e)	902 146	One hundred
(f)	263 049	Sixty thousand
(g)	528 163	Five hundred thousand
(h)	1 740 395	Seven hundred thousand
(i)	6 284 127	Six million
(j)	9 035 268	Nine million

(5) Put the correct symbol (<, > or =) into each box.

(a)	86 523	>	9 896
(b)	38 936	>	30 945
(c)	62 748	<	316 284
(d)	102 040	>	30 204
(e)	95 627	<	96 527
(f)	1 074 623	=	1 074 623
(g)	3 864 251	>	764 251
(h)	1 204 627	<	1 240 627
(i)	6 972 003	>	6 970 203
(j)	4 639 526	<	6 439 526



Maths Homework this week is about:

Rounding Numbers

Answers

Date:

Teacher:

Year 6

(1) The distances, in miles, on these signposts have been given too accurately. Round each distance to the nearest mile.

(a)	Adderley	56.34	Adderley	56
(b)	Fractionham	84.63	Fractionham	85
(c)	Squaretown	124.54	Squaretown	125
(d)	Graphdon	137.61	Graphdon	138
(e)	Dividingtry	209.48	Dividingtry	209

(2) Circle the closest number to each number in the box.

(a)	38	37.5	38.12	37.49	**37.99**	38.04
(b)	4.6	4.7	4.69	**4.61**	4.55	4.05
(c)	127	**127.05**	126.85	127.15	127.5	126.9
(d)	19.3	19.25	19.35	**19.39**	19.39	19.4
(e)	0.7	0.07	0.77	0.06	0.8	**0.72**

(3) Round each of these numbers to the nearest 100.

(a)	565	=	600	to the nearest 100
(b)	1 047	=	1 000	to the nearest 100
(c)	2 613	=	2 600	to the nearest 100
(d)	5 284	=	5 300	to the nearest 100
(e)	3 976	=	4 000	to the nearest 100

(4) Round 73 528

(a)	to the nearest 10	73 530
(b)	to the nearest 100	73 500
(c)	to the nearest 1 000	74 000

(5) Round 68 459

(a)	to the nearest 10	68 460
(b)	to the nearest 100	68 500
(c)	to the nearest 1 000	68 000

(6) Round each of these numbers to the nearest whole number.

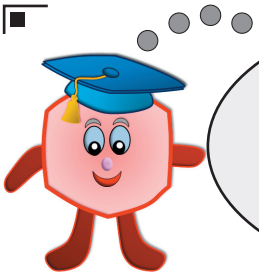
	Number	Nearest whole number
(a)	6.05	6
(b)	8.66	9
(c)	3.49	3
(d)	5.84	6
(e)	9.38	9
(f)	9.72	10
(g)	12.48	12
(h)	18.61	19
(i)	26.73	27
(j)	125.39	125

(7) Round each of these numbers to one decimal place

	Number	to one decimal place		Number	to one decimal place
(a)	18.73	18.7	(b)	148.65	148.7
(c)	13.68	13.7	(d)	293.38	293.4
(e)	27.93	27.9	(f)	643.24	643.2

(8) Sam said that there were 30 sweets in a bag to the nearest 10.
Give the smallest and largest number of sweets which could have been in the bag.

Smallest: 25 **Largest:** 34



Maths Homework this week is about:

Negative Numbers and Number Patterns

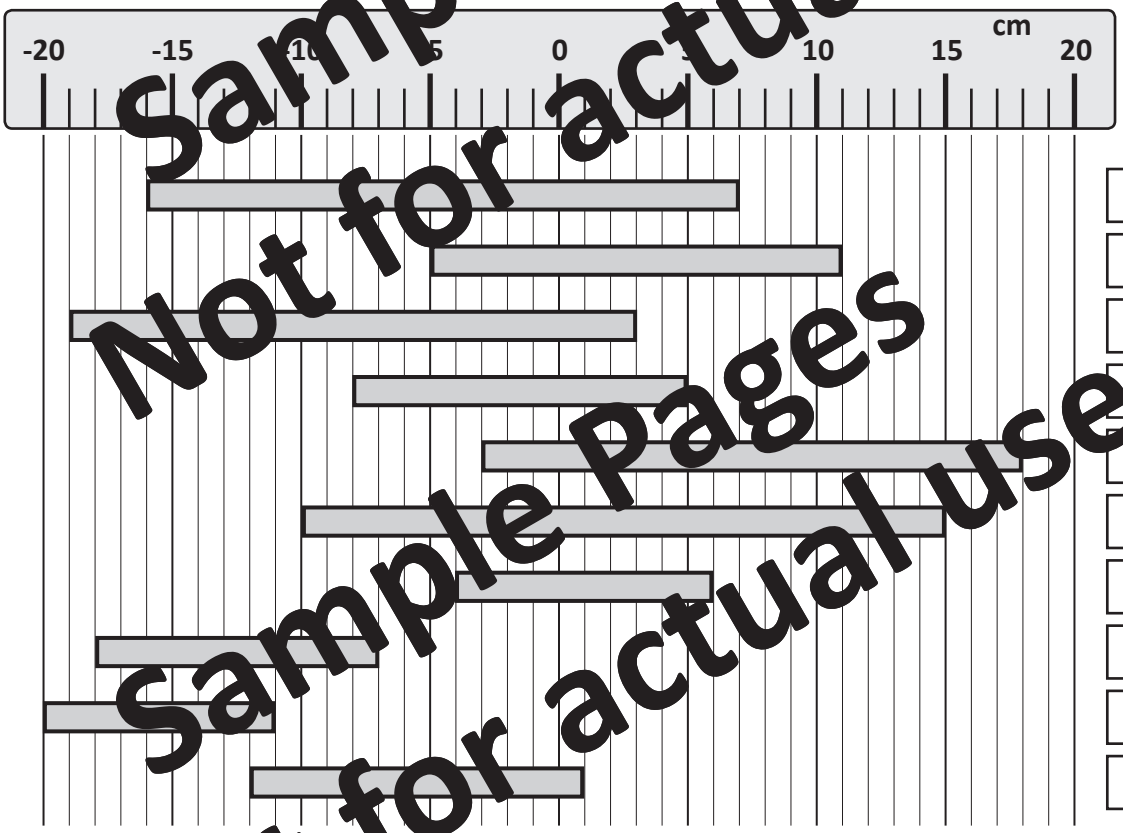
Answers

Date:

Teacher:

Year 6

(1) Use the negative number ruler to find the length of each rectangle.



(a)	23 cm
(b)	16 cm
(c)	22 cm
(d)	13 cm
(e)	21 cm
(f)	25 cm
(g)	10 cm
(h)	11 cm
(i)	9 cm
(j)	13 cm

(2) Circle the two numbers which have a difference of 3.

-5 **6** **4** **0** **3** **-10**

(3) Circle the two numbers which have a difference of 7.

-1 **3** **9** **-12** **-4** **-7**

(4) Put each list of numbers in order, lowest to highest.

(a)	4	-8	0	-11	-3	-11	-8	-3	0	4
(b)	-10	3	-4	-17	-2	-17	-10	-4	-2	3
(c)	12	-22	18	-9	21	-22	-9	12	18	21
(d)	-1	-31	-2	-26	-5	-31	-26	-5	-2	-1
(e)	-9	22	-48	36	-37	-47	-37	-9	22	36

(5) For each of these number lines, put the missing numbers in the boxes.

(a)

(b)

(c)

(d)

(e)

(6) The temperature one evening was 3°C. By the next morning it had dropped by 8°C.
What temperature was it the next morning?

-5°C

(7) The temperature dropped during one day from 1.5°C to -3.2°C.
What was the overall drop in temperature?

4.7°C

(8) The temperature at the start of one day was 4.8°C.
If the temperature dropped by 7.6°C during the day, what was the new temperature?

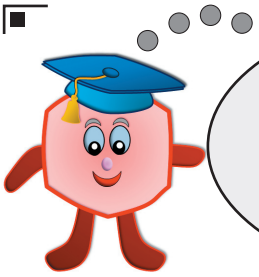
-2.8°C

(9) One day the temperature rose from -3.9°C to 6.6 °C.
By how many degrees did the temperature rise?

10.5°C

(10) Find the temperature at the start of a day if it had risen during the day by 5.7°C
to reach a temperature of 2.3°C

-3.4°C



Maths Homework this week is about:

Long Multiplication

Answers

Date:

Teacher:

Year 6

For each of these questions, use the traditional method of long multiplication.

(1)

$$\begin{array}{r} 46 \\ \times\ 34 \\ \hline 184 \\ 1380 \\ \hline 1564 \\ \hline \end{array}$$

(2)

$$\begin{array}{r} 67 \\ \times\ 29 \\ \hline 603 \\ 1340 \\ \hline 1943 \end{array}$$

(3)

$$\begin{array}{r} 85 \\ \times\ 47 \\ \hline 595 \\ 3400 \\ \hline 3995 \end{array}$$

(4)

$$\begin{array}{r} 29 \\ \times\ 86 \\ \hline 174 \\ 2320 \\ \hline 2494 \end{array}$$

(5)

$$\begin{array}{r} 76 \\ \times\ 57 \\ \hline 532 \\ 3800 \\ \hline 4332 \end{array}$$

(6)

$$\begin{array}{r} 58 \\ \times\ 98 \\ \hline 464 \\ 5220 \\ \hline 5684 \end{array}$$

(7)

$$\begin{array}{r} 253 \\ \times\ 84 \\ \hline 1012 \\ 20240 \\ \hline 21252 \end{array}$$

(8)

$$\begin{array}{r} 694 \\ \times\ 36 \\ \hline 4164 \\ 20820 \\ \hline 24984 \end{array}$$

(9)

$$\begin{array}{r} 827 \\ \times\ 57 \\ \hline 5789 \\ 41350 \\ \hline 47139 \end{array}$$

(10)

$$\begin{array}{r} 1345 \\ \times\ 27 \\ \hline 9415 \\ 26900 \\ \hline 36315 \end{array}$$

(11)

$$\begin{array}{r} 2841 \\ \times\ 65 \\ \hline 14470 \\ 170640 \\ \hline 185110 \end{array}$$

(12)

$$\begin{array}{r} 7623 \\ \times\ 87 \\ \hline 53361 \\ 609840 \\ \hline 663201 \end{array}$$

Answers

For each of these questions, use the grid method of long multiplication.

(13) **37 x 46**

	30	7
40	1200	280
6	180	42

1200
280
180
42
1702
2

Answer: 1702

(14) **[illegible] x 83**

	[illegible]	9
[illegible]	[illegible]	720
3	150	27

4000
720
150
27
4897

Answer: 4897

(15) **78 x 65**

	70	8
60	4200	480
5	350	40

4200
480
350
[illegible]
5070
1

Answer: 5070

(16) **92 x 48**

	90	2
40	3600	80
8	720	16

3600
80
720
16
4416
1 1

Answer: 4416

(17) **125 x 38**

	100	20	5
30	3000	600	150
8	800	160	40

[illegible]000
600
150
800
160
40
4750
1 1

Answer: 4750

(18) **274 x 63**

	200	70	4
60	12000	4200	240
3	600	210	12

12000
4200
240
600
210
12
17262
1

Answer: 17262

(19) **652 x 47**

	600	50	2
40	24000	2000	80
7	4200	350	14

24000
2000
80
4200
350
14
30644
1 1

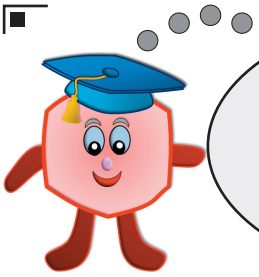
Answer: 30644

(20) **829 x 75**

	800	20	9
70	56000	1400	630
5	4000	100	45

56000
1400
630
4000
100
45
62175
1 1

Answer: 62175



Maths Homework this week is about:

Long Division

Answers

Date:

Teacher:

Year 6

Use long division, showing your working, to find the answer to each question.

(1) **672 ÷ 12**

```
      5 6
1 2 | 6 7 2
      6 0
        7 2
        7 2
          0
```

(2) **948 ÷ 12**

```
      7 9
1 2 | 9 4 8
      8 4
      1 0 8
      1 0 8
          0
```

(3) **882 ÷ 14**

```
      6 3
1 4 | 8 8 2
      8 4
        4 2
        4 2
          0
```

(4) **684 ÷ 18**

```
      3 8
1 8 | 6 8 4
      5 4
      1 4 4
      1 4 4
          0
```

(5) **735 ÷ 15**

```
      4 9
1 5 | 7 3 5
      6 0
      1 3 5
      1 3 5
          0
```

(6) **768 ÷ 24**

```
      3 2
2 4 | 7 6 8
      7 2
        4 8
        4 8
          0
```

(7) **855 ÷ 19**

```
      4 5
1 9 | 8 5 5
      7 6
        9 5
        9 5
          0
```

(8) **864 ÷ 32**

```
      2 7
3 2 | 8 6 4
      6 4
      2 2 4
      2 2 4
          0
```

(9) **949 ÷ 13**

```
      7 3
1 3 | 9 4 9
      9 1
        3 9
        3 9
          0
```

(10) **945 ÷ 45**

```
      2 1
4 5 | 9 4 5
      9 0
        4 5
        4 5
          0
```

Answers

(11) **4176 ÷ 12**

```
      3 4 8
1 2 | 4 1 7 6
      3 6
      ------
        5 7
        4 8
        ------
          9 6
          9 6
          ------
            0
```

(12) **5838 ÷ 14**

```
      4 1 7
1 4 | 5 8 3 8
      5 6
      ------
        2 3
        1 4
        ------
          9 8
          9 8
          ------
            0
```

(13) **8874 ÷ 17**

```
      5 2 2
1 7 | 8 8 7 4
      8 5
      ------
        3 7
        3 4
        ------
          3 4
          3 4
          ------
            0
```

(14) **7353 ÷ 19**

```
      3 8 7
1 9 | 7 3 5 3
      5 7
      ------
      1 6 5
      1 5 2
      ------
        1 3 3
        1 3 3
        ------
            0
```

(15) **5229 ÷ 21**

```
      2 4 9
2 1 | 5 2 2 9
      4 2
      ------
        1 0 2
        8 4
        ------
          1 8 9
          1 8 9
          ------
              0
```

(16) **5226 ÷ 26**

```
      2 0 1
2 6 | 5 2 2 6
      5 2
      ------
        0 2
          0
        ------
          2 6
          2 6
          ------
            0
```

(17) **5910 ÷ 15**

```
      3 9 4
1 5 | 5 9 1 0
      4 5
      ------
      1 4 1
      1 3 5
      ------
          6 0
          6 0
          ------
            0
```

(18) **9262 ÷ 22**

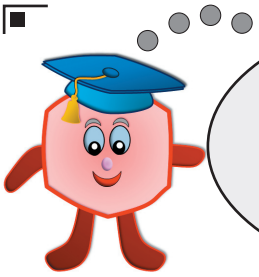
```
      4 2 1
2 2 | 9 2 6 2
      8 8
      ------
        4 6
        4 4
        ------
          2 2
          2 2
          ------
            0
```

(19) **8277 ÷ 31**

```
      2 6 7
3 1 | 8 2 7 7
      6 2
      ------
      2 0 7
      1 8 6
      ------
        2 1 7
        2 1 7
        ------
            0
```

(20) **8964 ÷ 18**

```
      4 9 8
1 8 | 8 9 6 4
      7 2
      ------
      1 7 6
      1 6 2
      ------
        1 4 4
        1 4 4
        ------
            0
```



Maths Homework this week is about:

Mental Calculations

Answers

Date:

Teacher:

Year 6

For all the questions on this sheet you should try to work out the answer in your head without writing down any working.

(1) Addition Circles

Add together the numbers around each circle and write your answer in the centre circle.

(a) 16, 15, **66**, 17, 18

(b) 40, 20, **200**, 60, 80

(c) 19, 17, **80**, 21, 23

(d) 18, 9, **90**, 27, 36

(e) 30, 15, **150**, 45, 60

(f) 32, 22, **148**, 42, 52

(g) 130, 120, **540**, 140, 150

(h) 150, 100, **700**, 200, 250

(i) 112, 111, **450**, 113, 114

(j) 100, 70, **460**, 130, 160

(2) Subtraction Blocks

Subtract each pair of numbers and write your answer in the box.

(a) 96 − 32 = **64**

(b) 76 − 41 = **35**

(c) 87 − 38 = **49**

(d) 59 − 12 = **47**

(e) 83 − 46 = **37**

(f) 147 − 66 = **81**

(g) 183 − 79 = **104**

(h) 241 − 123 = **118**

(i) 276 − 98 = **178**

(j) 567 − 123 = **444**

(3) Multiplication Pyramids.
Multiply each pair of numbers and write your answer at the top of the pyramid.

(a)
95
19 5

(b)
56
7 8

(c)
60
4 15

(d)
128
16 8

(e)
300
20 15

(f)
65
5 13

(g)
51
3 17

(h)
132
11 12

(i)
144
6 24

(j)
70
14 5

(k)
270
30 9

(l)
225
15 15

(4) Division Pyramids.
Divide the number at the top of the pyramid by the number at the bottom and write your answer in the empty space in the pyramid.

(a)
108
12 9

(b)
72
6 12

(c)
91
13 7

(d)
99
11 9

(e)
90
6 15

(f)
121
11 11

(g)
68
17 4

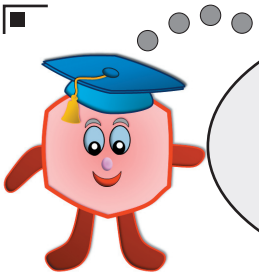
(h)
57
3 19

(i)
125
5 25

(j)
300
15 20

(k)
108
9 12

(l)
500
20 25



Maths Homework this week is about:

Factors, Multiples and Primes

Answers

Date:

Teacher:

Year 6

(1) Circle all the prime numbers in this list.

1 2 3 4 5 6 7 8 9 10

(2) What is the next prime number after 29? **31**

(3) Give the next prime number after 47? **53**

(4) Give the next five multiples of each of the following numbers.

(a)	7	14	21	28	35	42
(b)	11	22	33	44	55	66
(c)	13	26	39	52	65	78
(d)	35	70	105	140	175	210
(e)	46	92	138	184	230	276

(5) For each pair of numbers, circle the number in the box which is a common multiple of both.

(a) 3, 5: 8, 15, 16, 35

(b) 7, 11: 5, 11, 27, 28

(c) 4, 5: 1, 4, 20, 24

(d) 6, 7: 6, 19, 21, 42

(e) 5, 8: 5, 40, 50, 88

(f) 2, 17: 2, 15, 34, 217

(6) Give the factors of each of these numbers.

(a)	7	has factors	1	and	7
(b)	11	has factors	1	and	11
(c)	13	has factors	1	and	13
(d)	19	has factors	1	and	19

(e) Fill in the missing word in this sentence.

Because each of the above numbers have exactly TWO FACTORS,

they are called prime numbers.

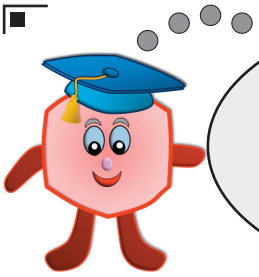
(7) Give all the pairs of factors for each of these numbers:

(a) Factors of 10	(b) Factors of 20	(c) Factors of 16	(d) Factors of 32
1 x 10 2 x 5	1 x 20 2 x 10 4 x 5	1 x 16 2 x 8 4 x 4	1 x 32 2 x 16 4 x 8

(e) Factors of 42	(f) Factors of 50	(g) Factors of 70	(h) Factors of 100
1 x 42 2 x 21 3 x 14 6 x 7	1 x 50 2 x 25 5 x 10	1 x 70 2 x 35 5 x 14 7 x 10	1 x 100 2 x 50 4 x 25 5 x 20 10 x 10

(8) (a) Give the common factors of 10 and 16: 1, 2

(b) Give the common factors of 20 and 50: 1, 2, 5, 10



Maths Homework this week is about:

Order of Operations Calculations

Answers

Date:

Teacher:

Year 6

(1) Find the answer to each calculation.

(a)	5 × 2 + 6	=	16
(b)	8 × 7 - 9	=	47
(c)	20 ÷ 4 + 6	=	11
(d)	50 ÷ 5 - 3	=	7
(e)	8 + 5 × 4	=	28
(f)	7 + 6 × 8	=	55
(g)	9 + 15 ÷ 3	=	14
(h)	28 - 3 × 2	=	22
(i)	40 ÷ 8 × 3	=	16
(j)	50 - 21 ÷ 7	=	47

(2) Find the answer to each calculation.

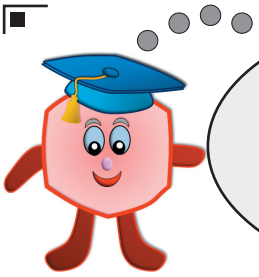
(a)	4 + 2 × 3 + 1	=	11
(b)	1 + 6 × 5 + 3	=	34
(c)	5 + 5 × 8 + 4	=	49
(d)	8 + 3 × 7 - 2	=	27
(e)	12 + 9 × 2 - 12	=	18
(f)	50 - 2 × 4 - 8	=	30
(g)	7 + 10 ÷ 2 + 3	=	15
(h)	6 + 8 ÷ 4 + 10	=	18
(i)	15 + 20 ÷ 4 - 10	=	10
(j)	40 - 30 ÷ 6 + 1	=	36

(3) Find the answer to each calculation. Remember to find the value inside the brackets first.

(a)	(4 + 8) × 5	=	60
(b)	(3 + 4) × 11	=	77
(c)	6 × (9 + 3)	=	72
(d)	(9 + 5) × 3	=	42
(e)	28 ÷ (4 + 3)	=	4
(f)	60 ÷ (16 - 4)	=	5
(g)	(31 - 3) ÷ 7	=	4
(h)	(28 - 8) ÷ 12	=	3
(i)	9 × (22 - 10)	=	108
(j)	(32 - 22) × 8	=	80

(4) Find the answer to each calculation. Again the value inside each pair of brackets needs to be found first.

(a)	(3 + 5) × (2 + 4)	=	48
(b)	(2 + 7) × (3 + 4)	=	63
(c)	(3 + 9) × (17 - 9)	=	96
(d)	(19 - 16) × (8 + 6)	=	42
(e)	(49 - 47) × (2 + 9)	=	22
(f)	(82 - 62) × (64 - 59)	=	100
(g)	(88 - 28) ÷ (11 + 4)	=	12
(h)	(40 + 41) ÷ (17 - 10)	=	9
(i)	(22 + 23) ÷ (51 - 48)	=	15
(j)	(40 + 44) ÷ (28 - 22)	=	14



Maths Homework this week is about:

Various Maths Problems

Answers

Date:

Teacher:

Year 6

(1) A shop sold packets of crisps at 45p each. How much would five packets of crisps cost?

45 x 5 = 225

£2.25

(2) Find the total of the spots on all faces of three regular dice.

1 + 2 + 3 + 4 + 5 + 6 = 21
21 × 3 = 63

63

(3) A grandmother shares £25.80 equally between her three grandchildren. How much money did each grandchild receive?

25.80 ÷ 3 = 8.60

£8.60

(4) Pine trees were planted in neat rows in a field. If there were 12 rows with 18 trees in each row, how many trees were there altogether?

12 × 18 = 216

216

(5) The number of minutes spent on homework by a pupil on five nights of one week were: 23 mins, 28 mins, 36 mins, 38 mins, 22 mins. Find the total time spent, in hours and minutes.

23 + 28 + 36 + 38 + 22 = 127
127 ÷ 60 = 2 remainder 7

2 hrs 7 mins

(6) A computer was priced at £645. If it was reduced in a sale by £137, what was the sale price?

645 - 137 = 508

£508

(7) There are 656 car parking spaces in a large car park. All the spaces are arranged in rows with the same number of spaces in each row. If there are 16 rows, how many spaces are there in each row?

656 ÷ 16 = 41

41

(8) How many hours are there in total in one week?

24 × 7 = 168

168

(9) Find the sum of all the whole numbers from 1 to 20.

1 + 2 + 3 + 4 + 5 + 6 + 7 + 8 + 9 + 10 + 11 + 12 + 13 + 14 + 15 + 16 + 17 + 18 + 19 + 20
= 210
or, pair up numbers from each end of the list working in, to make 10 pairs of 21, and 10 × 21 = 210

210

(10) A box of dog biscuits contains 96 biscuits. If the dog is given 8 biscuits per day, for how many days will the box last?

96 ÷ 8 = 12

12 days

(11) Use this menu to answer the questions below.

Menu	
Tea	£0.80
Coffee	£1.10
Orange Juice	£1.25
Ham Sandwich	£1.80
Cheese Sandwich	£1.75
Fruit Salad	£1.40
Flapjack	£0.90
Frozen Yoghurt	£0.70

(a) Find the cost of seven cups of tea.

7 × 0.80 = 5.60

£5.60

(b) What is the cost of a coffee and a cheese sandwich?

1.10 + 1.75 = 2.85

£2.85

(c) Give the total cost of two glasses of orange juice and two flapjacks.

1.25 + 1.25 + 0.90 + 0.90

£4.30

(d) How much would twelve frozen yoghurts cost?

12 × 0.70 = 8.40

£8.40

(e) Calculate the total price of four cheese sandwiches and two fruit salads.

1.75 × 4 = 7.00 1.40 × 2 = 2.80
7.00 + 2.80 = 9.80

£9.80

(f) Work out the cost of six coffees and three ham sandwiches.

1.10 × 6 = 6.60 1.80 × 3 = 5.40
6.60 + 5.40 = 12

£12

(g) What is the total cost of eight fruit salads?

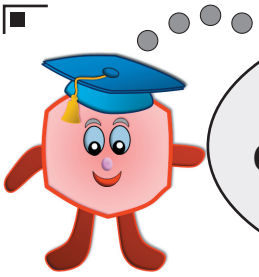
1.40 × 8 = 11.20

£11.20

(h) Find the total cost of one of each item on the menu.

0.80 + 1.10 + 1.25 + 1.80 + 1.75 + 1.40 + 0.90 + 0.70 = 9.70

£9.70



Maths Homework this week is about:

Checking Answers using Estimation

Answers

Date:

Teacher:

Year 6

(1) Sue said that **4.9 × 12.1 = 59.29**
By rounding each of the numbers to the nearest whole number, find an approximate answer to see whether Sue could be correct.

5 × 12 = 60

This is close to 59.29, so Sue could be correct

(2) Sam said that **29.7 × 41.3 = 12266.1**
By rounding each of the numbers to the nearest ten, find an approximate answer to see whether Sam could be correct.

30 × 40 = 1200

This is a long way from 12266.1, so Sam is incorrect

(3) Helen said that **80.94 ÷ 1.9 = 42.6**
By rounding each of the numbers to an appropriate value, find an approximate answer to see whether Helen could be correct.

80 ÷ 2 = 40

This is close to 42.6, so Helen could be correct

(4) By rounding each of the numbers to the nearest whole number, find an approximate answer to each of these calculations.

	Calculation	Approximate Values	Approximate Answer
(a)	12.4 × 9.7	12 × 10	120
(b)	13.1 × 4.3	13 × 4	52
(c)	5.2 × 17.9	5 × 18	90
(d)	19.7 × 15.2	20 × 15	300
(e)	44.8 × 3.8	45 × 4	180
(f)	49.7 × 18.3	50 × 20	900
(g)	39.[illegible] ÷ 4.7	40 ÷ 5	8
(h)	99.9 ÷ 19.9	100 ÷ 20	5
(i)	79.5 ÷ 3.[illegible]	80 ÷ 4	20
(j)	65.7 ÷ 5.6	66 ÷ 6	11

(5) Use an estimate to see whether the following answers, given by a pupil, could be correct or not. Write "YES" in the last column if the answer could be correct, and "NO" if it cannot be correct.

	Calculation	Pupil's Answer	Your Estimate	YES / NO
(eg)	46 + 11	57	50 + 10 = 60	YES
(a)	89 + 122	211	90 + 120 = 210	NO
(b)	71 + 202	273	70 + 200 = 270	YES
(c)	60.3 - 19.6	20.7	60 - 20 = 40	NO
(d)	139.7 - 39.7	39.7	140 - 40 = 100	NO
(e)	259.8 - 60.4	199.4	260 - 60 = 200	YES
(f)	7.9 × 11.2	92.68	8 × 9 = 72	NO
(g)	11.9 × 9.9	117.81	12 × 10 = 120	YES
(h)	11.2 × 4.1	45.92	11 × 4 = 44	YES
(i)	70.11 ÷ 4.8	14.6	70 ÷ 5 = 14	NO
(j)	60.39 ÷ 3.3	18.3	60 ÷ 3 = 20	YES

(6) Use a suitable estimate to see whether each of these sale price savings on the labels could be correct. Say "YES" if the sale price could be correct, and "NO" if it cannot be correct.

(eg)

WAS £69	70 - 30
NOW £31	= 40
SAVE £38	YES

(a)

WAS £121	120 - 100
NOW £101	= 20
SAVE £10	NO

(b)

WAS £249	250 - 100
NOW £151	= 150
SAVE £98	NO

(c)

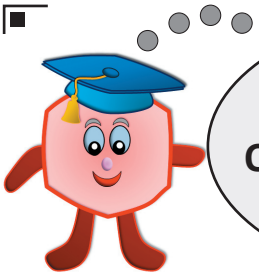
WAS £929	930 - 800
NOW £801	= 130
SAVE £128	YES

(d)

WAS £468	470 - 240
NOW £239	= 230
SAVE £229	YES

(e)

WAS £861	860 - 460
NOW £459	= 400
SAVE £202	NO



Maths Homework this week is about:

Ordering and Simplifying Fractions

Answers

Date:

Teacher:

Year 6

(1) Put a circle around the largest fraction in each box.

(a) $\frac{2}{3}$ $\frac{2}{5}$

(b) $\frac{4}{9}$ $\frac{4}{11}$

(c) $\frac{7}{18}$ $\frac{7}{15}$

(d) $\frac{12}{19}$ $\frac{12}{21}$

(e) $\frac{2}{9}$ $\frac{4}{9}$

(f) $\frac{11}{14}$ $\frac{9}{14}$

(g) $\frac{11}{18}$ $\frac{13}{18}$

(h) $\frac{14}{23}$ $\frac{19}{23}$

(2) Put the correct symbol in each box. Choose from $<$ or $>$.

(a) $\frac{3}{11}$ $<$ $\frac{4}{11}$

(b) $\frac{7}{12}$ $>$ $\frac{5}{16}$

(c) $\frac{5}{15}$ $=$ $\frac{2}{6}$

(d) $\frac{6}{17}$ $>$ $\frac{6}{19}$

(e) $\frac{1}{4}$ $<$ $\frac{1}{3}$

(f) $\frac{3}{4}$ $>$ $\frac{2}{3}$

(g) $\frac{3}{17}$ $=$ $\frac{9}{51}$

(h) $\frac{19}{20}$ $>$ $\frac{9}{10}$

(i) $\frac{83}{100}$ $<$ $\frac{43}{50}$

(j) $\frac{2}{5}$ $<$ $\frac{17}{20}$

(k) $\frac{6}{8}$ $=$ $\frac{3}{4}$

(l) $\frac{17}{24}$ $>$ $\frac{13}{25}$

(3) Put each of these sets of fractions in order, from lowest to highest.

(a) $\frac{3}{11}$ $\frac{10}{11}$ $\frac{2}{11}$ $\frac{7}{11}$ → $\frac{2}{11}$ $\frac{3}{11}$ $\frac{7}{11}$ $\frac{10}{11}$

(b) $\frac{6}{13}$ $\frac{6}{17}$ $\frac{6}{7}$ $\frac{6}{11}$ → $\frac{6}{17}$ $\frac{6}{13}$ $\frac{6}{11}$ $\frac{6}{7}$

(c) $\frac{10}{19}$ $\frac{4}{19}$ $\frac{13}{19}$ $\frac{7}{19}$ → $\frac{4}{19}$ $\frac{7}{19}$ $\frac{10}{19}$ $\frac{13}{19}$

(d) $\frac{3}{14}$ $\frac{3}{13}$ $\frac{3}{20}$ $\frac{3}{16}$ → $\frac{3}{20}$ $\frac{3}{16}$ $\frac{3}{14}$ $\frac{3}{13}$

(e) $\frac{2}{5}$ $\frac{9}{10}$ $\frac{3}{5}$ $\frac{1}{4}$ → $\frac{1}{4}$ $\frac{2}{5}$ $\frac{3}{5}$ $\frac{9}{10}$

(f) $\frac{3}{4}$ $\frac{6}{7}$ $\frac{2}{9}$ $\frac{1}{3}$ → $\frac{2}{9}$ $\frac{1}{3}$ $\frac{3}{4}$ $\frac{6}{7}$

(4) Write each of these fractions as simply as possible.

(a) $\frac{4}{6} = \frac{2}{3}$

(b) $\frac{6}{8} = \frac{3}{4}$

(c) $\frac{8}{14} = \frac{4}{7}$

(d) $\frac{10}{18} = \frac{5}{9}$

(e) $\frac{12}{14} = \frac{6}{7}$

(f) $\frac{4}{10} = \frac{2}{5}$

(g) $\frac{14}{24} = \frac{7}{12}$

(h) $\frac{4}{30} = \frac{2}{15}$

(i) $\frac{18}{34} = \frac{9}{17}$

(5) Write each of these fractions as simply as possible.

(a) $\frac{12}{15} = \frac{4}{5}$

(b) $\frac{40}{55} = \frac{8}{11}$

(c) $\frac{8}{84} = \frac{2}{21}$

(d) $\frac{25}{45} = \frac{5}{9}$

(e) $\frac{30}{48} = \frac{5}{16}$

(f) $\frac{18}{21} = \frac{6}{7}$

(g) $\frac{20}{68} = \frac{5}{17}$

(h) $\frac{56}{91} = \frac{8}{13}$

(i) $\frac{27}{72} = \frac{3}{8}$

(6) Say which number was used to simplify each of these fractions.

(a) $\frac{36}{44} \xrightarrow{\div 4} \frac{9}{11}$ ($\div 4$)

(b) $\frac{35}{84} \xrightarrow{\div 7} \frac{5}{12}$ ($\div 7$)

(c) $\frac{21}{48} \xrightarrow{\div 3} \frac{7}{16}$ ($\div 3$)

(d) $\frac{40}{45} \xrightarrow{\div 5} \frac{8}{9}$ ($\div 5$)

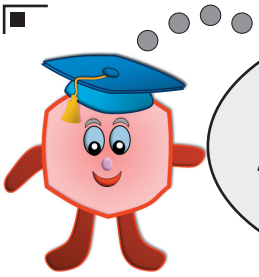
(e) $\frac{36}{66} \xrightarrow{\div 6} \frac{6}{11}$ ($\div 6$)

(f) $\frac{16}{152} \xrightarrow{\div 8} \frac{2}{19}$ ($\div 8$)

(g) $\frac{36}{264} \xrightarrow{\div 12} \frac{3}{22}$ ($\div 12$)

(h) $\frac{54}{126} \xrightarrow{\div 9} \frac{6}{14}$ ($\div 9$)

(i) $\frac{33}{88} \xrightarrow{\div 11} \frac{3}{8}$ ($\div 11$)



Maths Homework this week is about:

Adding and Subtracting Fractions

Answers

Date:

Teacher:

Year 6

(1) Add each pair of fractions.

(a) $\frac{2}{7} + \frac{3}{7} = \frac{5}{7}$

(b) $\frac{3}{11} + \frac{5}{11} = \frac{8}{11}$

(c) $\frac{6}{15} + \frac{7}{15} = \frac{13}{15}$

(d) $\frac{8}{23} + \frac{11}{23} = \frac{19}{23}$

(e) $\frac{7}{19} + \frac{7}{19} = \frac{14}{19}$

(f) $\frac{18}{29} + \frac{8}{29} = \frac{26}{29}$

(2) Use the strips to add each pair of fractions.
Give each missing fraction and give the answer as simply as possible.

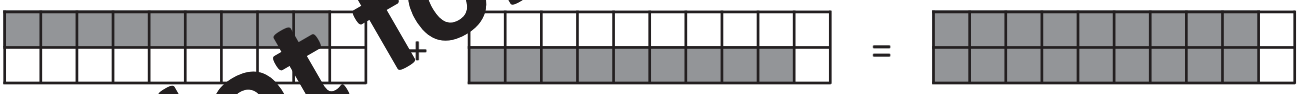
(a)

$\frac{3}{20} + \frac{7}{20} = \frac{10}{20} = \frac{1}{2}$

(b)

$\frac{7}{20} + \frac{9}{20} = \frac{16}{20} = \frac{4}{5}$

(c)



$\frac{9}{20} + \frac{9}{20} = \frac{18}{20} = \frac{9}{10}$

(3) Change to fractions with the same denominator, and then do each pair of fractions.

(a) $\frac{1}{2} + \frac{1}{3} = \frac{3}{6} + \frac{2}{6} = \frac{5}{6}$

(b) $\frac{2}{7} + \frac{2}{5} = \frac{10}{35} + \frac{14}{35} = \frac{24}{35}$

(c) $\frac{1}{4} + \frac{2}{5} = \frac{5}{20} + \frac{8}{20} = \frac{13}{20}$

(d) $\frac{3}{8} + \frac{4}{9} = \frac{27}{72} + \frac{32}{72} = \frac{59}{72}$

(e) $\frac{1}{8} + \frac{3}{5} = \frac{5}{40} + \frac{24}{40} = \frac{29}{40}$

(f) $\frac{2}{3} + \frac{1}{7} = \frac{14}{21} + \frac{3}{21} = \frac{17}{21}$

(4) Subtract each pair of fractions.

(a) $\frac{5}{9} - \frac{1}{9} = \frac{4}{9}$

(b) $\frac{12}{13} - \frac{6}{13} = \frac{6}{13}$

(c) $\frac{17}{19} - \frac{16}{19} = \frac{1}{19}$

(d) $\frac{19}{30} - \frac{8}{30} = \frac{11}{30}$

(e) $\frac{14}{27} - \frac{7}{27} = \frac{7}{27}$

(f) $\frac{30}{31} - \frac{17}{31} = \frac{13}{31}$

(5) Use the strips to subtract each pair of fractions.
Give each missing fraction, and give the answer as simply as possible.

(a)

$\frac{17}{20} - \frac{5}{20} = \frac{12}{20} = \frac{3}{5}$

(b)

$\frac{11}{20} - \frac{3}{20} = \frac{8}{20} = \frac{2}{5}$

(c)

$\frac{19}{20} - \frac{4}{20} = \frac{15}{20} = \frac{3}{4}$

(6) Change to fractions with the same denominator, and then subtract each pair of fractions.

(a) $\frac{2}{3} - \frac{1}{2} = \frac{4}{6} - \frac{3}{6} = \frac{1}{6}$

(b) $\frac{4}{5} - \frac{2}{3} = \frac{12}{15} - \frac{10}{15} = \frac{2}{15}$

(c) $\frac{3}{4} - \frac{2}{3} = \frac{9}{12} - \frac{8}{12} = \frac{1}{12}$

(d) $\frac{5}{6} - \frac{2}{5} = \frac{25}{30} - \frac{12}{30} = \frac{13}{30}$

(e) $\frac{6}{7} - \frac{1}{2} = \frac{12}{14} - \frac{7}{14} = \frac{5}{14}$

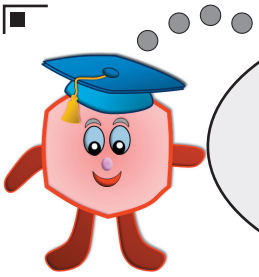
(f) $\frac{3}{5} - \frac{2}{7} = \frac{21}{35} - \frac{10}{35} = \frac{11}{35}$

(g) $\frac{5}{8} - \frac{1}{5} = \frac{25}{40} - \frac{8}{40} = \frac{17}{40}$

(h) $\frac{7}{8} - \frac{2}{3} = \frac{21}{24} - \frac{16}{24} = \frac{5}{24}$

(i) $\frac{9}{10} - \frac{3}{7} = \frac{63}{70} - \frac{30}{70} = \frac{33}{70}$

(j) $\frac{13}{15} - \frac{1}{2} = \frac{26}{30} - \frac{15}{30} = \frac{11}{30}$



Maths Homework this week is about:

Multiplying Fractions

Answers

Date:

Teacher:

Year 6

(1) Multiply each pair of fractions.

(In this question you are multiplying by $\frac{1}{2}$).

(a) $\frac{1}{2} \times \frac{3}{7} = \frac{3}{14}$

(b) $\frac{1}{2} \times \frac{5}{8} = \frac{5}{16}$

(c) $\frac{1}{2} \times \frac{3}{7} = \frac{3}{14}$

(d) $\frac{1}{2} \times \frac{7}{9} = \frac{7}{18}$

(e) $\frac{1}{2} \times \frac{9}{11} = \frac{9}{22}$

(f) $\frac{1}{2} \times \frac{15}{17} = \frac{15}{34}$

(g) What do you notice? Numerator stays the same. Denominator doubles

(2) Multiply each pair of fractions.

(In this question you are multiplying by $\frac{1}{3}$).

(a) $\frac{1}{3} \times \frac{5}{7} = \frac{5}{21}$

(b) $\frac{1}{3} \times \frac{4}{9} = \frac{4}{27}$

(c) $\frac{1}{3} \times \frac{2}{5} = \frac{2}{15}$

(d) $\frac{1}{3} \times \frac{7}{8} = \frac{7}{24}$

(e) $\frac{1}{3} \times \frac{8}{11} = \frac{8}{33}$

(f) $\frac{1}{3} \times \frac{1}{22} = \frac{1}{66}$

(g) What do you notice? Numerator stays the same. Denominator trebles

(3) Multiply each pair of fractions.

(In this question you are multiplying by $\frac{2}{5}$).

(a) $\frac{2}{5} \times \frac{3}{4} = \frac{6}{20}$

(b) $\frac{2}{5} \times \frac{4}{5} = \frac{8}{25}$

(c) $\frac{2}{5} \times \frac{4}{7} = \frac{8}{35}$

(d) $\frac{2}{5} \times \frac{6}{7} = \frac{12}{35}$

(e) $\frac{2}{5} \times \frac{9}{11} = \frac{18}{55}$

(f) $\frac{2}{5} \times \frac{8}{15} = \frac{16}{75}$

(g) What do you notice? Numerator doubles. Denominator is multiplied by 5

(4) Find the answer to each of these fraction multiplications.

(a) $\frac{5}{8} \times \frac{3}{4} = \frac{15}{32}$

(b) $\frac{2}{9} \times \frac{4}{5} = \frac{8}{45}$

(c) $\frac{7}{11} \times \frac{12}{15} = \frac{84}{165}$

(d) $\frac{6}{7} \times \frac{8}{11} = \frac{48}{77}$

(e) $\frac{1}{3} \times \frac{11}{14} = \frac{11}{42}$

(f) $\frac{5}{7} \times \frac{8}{9} = \frac{40}{63}$

(g) $\frac{11}{12} \times \frac{5}{8} = \frac{55}{96}$

(h) $\frac{9}{10} \times \frac{7}{13} = \frac{63}{130}$

(i) $\frac{2}{17} \times \frac{3}{11} = \frac{6}{187}$

(5) Find the answer to each of these fraction multiplications.
In these questions you are multiplying each fraction by itself.

(a) $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

(b) $\frac{2}{3} \times \frac{2}{3} = \frac{4}{9}$

(c) $\frac{3}{4} \times \frac{3}{4} = \frac{9}{16}$

(d) $\frac{4}{5} \times \frac{4}{5} = \frac{16}{25}$

(e) $\frac{5}{6} \times \frac{5}{6} = \frac{25}{36}$

(f) $\frac{6}{7} \times \frac{6}{7} = \frac{36}{49}$

(g) $\frac{7}{8} \times \frac{7}{8} = \frac{49}{64}$

(h) $\frac{8}{9} \times \frac{8}{9} = \frac{64}{81}$

(i) $\frac{9}{10} \times \frac{9}{10} = \frac{81}{100}$

(6) In these questions, multiply each pair of fractions, then simplify the answer.

(a) $\frac{3}{5} \times \frac{1}{6} = \frac{3}{30} = \frac{1}{10}$

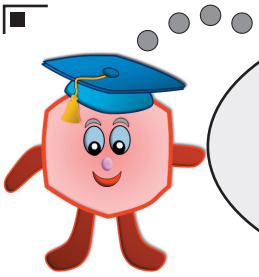
(b) $\frac{4}{7} \times \frac{5}{6} = \frac{20}{42} = \frac{10}{21}$

(c) $\frac{5}{8} \times \frac{7}{15} = \frac{35}{120} = \frac{7}{24}$

(d) $\frac{9}{10} \times \frac{7}{12} = \frac{63}{120} = \frac{21}{40}$

(e) $\frac{7}{8} \times \frac{3}{14} = \frac{21}{112} = \frac{3}{16}$

(f) $\frac{4}{9} \times \frac{3}{8} = \frac{12}{72} = \frac{1}{6}$



Maths Homework this week is about:

Dividing Fractions by Whole Numbers

Answers

Date:

Teacher:

Year 6

(1) Circle the correct answer for each of these divisions.

(a) $\frac{2}{3} \div 5$: $\frac{10}{3}$, $\frac{2}{15}$, $\frac{10}{15}$

(b) $\frac{4}{5} \div 2$: $\frac{4}{10}$, $\frac{5}{6}$, $\frac{2}{5}$

(c) $\frac{3}{8} \div 3$: $\frac{9}{8}$, $\frac{9}{24}$, $\frac{3}{24}$

(d) $\frac{5}{6} \div 3$: $\frac{5}{18}$, $\frac{15}{18}$, $\frac{5}{2}$

(e) $\frac{2}{7} \div 6$: $\frac{2}{42}$, $\frac{12}{7}$, $\frac{6}{42}$

(f) $\frac{7}{9} \div 4$: $\frac{28}{36}$, $\frac{7}{36}$, $\frac{28}{9}$

(g) $\frac{9}{10} \div 5$: $\frac{45}{10}$, $\frac{9}{2}$, $\frac{9}{50}$

(h) $\frac{9}{11} \div 8$: $\frac{72}{88}$, $\frac{72}{1}$, $\frac{9}{88}$

(i) $\frac{7}{9} \div 9$: $\frac{7}{1}$, $\frac{7}{81}$, $\frac{63}{9}$

(j) $\frac{3}{7} \div 10$: $\frac{30}{70}$, $\frac{30}{7}$, $\frac{3}{70}$

(k) $\frac{1}{8} \div 8$: $\frac{1}{64}$, $\frac{8}{64}$, $\frac{1}{1}$

(l) $\frac{5}{8} \div 6$: $\frac{30}{8}$, $\frac{5}{48}$, $\frac{30}{48}$

(2) Divide each of these fractions by 2.

(a) $\frac{5}{9} \div 2 = \frac{5}{18}$

(b) $\frac{2}{15} \div 2 = \frac{13}{30}$

(c) $\frac{9}{13} \div 2 = \frac{9}{26}$

(d) $\frac{11}{12} \div 2 = \frac{11}{24}$

(e) $\frac{7}{11} \div 2 = \frac{7}{22}$

(f) $\frac{15}{17} \div 2 = \frac{15}{34}$

(g) $\frac{7}{17} \div 2 = \frac{7}{34}$

(h) $\frac{3}{19} \div 2 = \frac{3}{38}$

(i) $\frac{17}{19} \div 2 = \frac{17}{38}$

(3) Divide each of these fractions by 3.

(a) $\frac{2}{7} \div 3 = \frac{2}{21}$

(b) $\frac{8}{11} \div 3 = \frac{8}{33}$

(c) $\frac{1}{5} \div 3 = \frac{1}{15}$

(d) $\frac{7}{10} \div 3 = \frac{7}{30}$

(e) $\frac{5}{14} \div 3 = \frac{5}{42}$

(f) $\frac{5}{8} \div 3 = \frac{5}{24}$

(g) $\frac{2}{5} \div 3 = \frac{2}{15}$

(h) $\frac{5}{9} \div 3 = \frac{5}{27}$

(i) $\frac{10}{11} \div 3 = \frac{10}{33}$

(4) Fill in the missing boxes in these calculations.

(a) $\frac{3}{4} \div 5 = \frac{3}{20}$

(b) $\frac{2}{5} \div 3 = \frac{2}{15}$

(c) $\frac{4}{7} \div 5 = \frac{4}{35}$

(d) $\frac{5}{7} \div 4 = \frac{5}{28}$

(e) $\frac{5}{8} \div 6 = \frac{5}{48}$

(f) $\frac{2}{9} \div 7 = \frac{2}{63}$

(g) $\frac{5}{6} \div 2 = \frac{5}{12}$

(h) $\frac{7}{9} \div 4 = \frac{7}{36}$

(i) $\frac{5}{11} \div 6 = \frac{5}{66}$

(j) $\frac{1}{9} \div 8 = \frac{1}{72}$

(k) $\frac{3}{11} \div 7 = \frac{3}{77}$

(l) $\frac{5}{6} \div 9 = \frac{5}{54}$

(5) For each of these questions, divide the fraction by the whole number, and then simplify your answer.

(a) $\frac{10}{11} \div 5 = \frac{10}{55} = \frac{2}{11}$

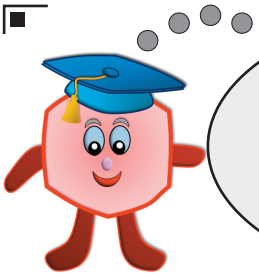
(b) $\frac{18}{19} \div 3 = \frac{18}{57} = \frac{6}{19}$

(c) $\frac{12}{13} \div 3 = \frac{12}{39} = \frac{4}{13}$

(d) $\frac{9}{10} \div 6 = \frac{9}{60} = \frac{3}{20}$

(e) $\frac{10}{17} \div 4 = \frac{10}{68} = \frac{5}{34}$

(f) $\frac{21}{22} \div 7 = \frac{21}{154} = \frac{3}{22}$



Maths Homework this week is about:

Fractions to Decimals

Answers

Date:

Teacher:

Year 6

(1) Fill in the missing values for these fractions and decimals.

(a) **0.7** = $\frac{7}{10}$

(b) **0.3** = $\frac{3}{10}$

(c) **0.4** = $\frac{4}{10}$

(d) **0.1** = $\frac{1}{10}$

(2) Write each of these decimals as tenths, and then write the fraction as simply as possible.

(a) **0.2** = $\frac{2}{10}$ = $\frac{1}{5}$

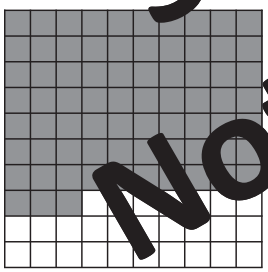
(b) **0.4** = $\frac{4}{10}$ = $\frac{2}{5}$

(c) **0.6** = $\frac{6}{10}$ = $\frac{3}{5}$

(d) **0.8** = $\frac{8}{10}$ = $\frac{4}{5}$

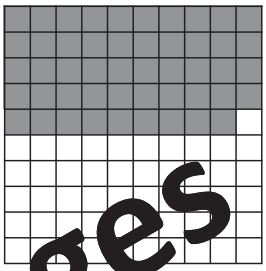
(e) **0.5** = $\frac{5}{10}$ = $\frac{1}{2}$

(3) For each of the diagrams, find the shaded area both as a decimal and as a fraction.

(a) 

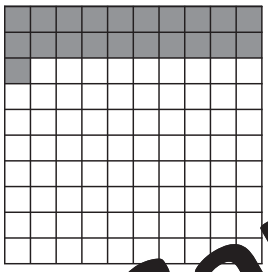
Decimal: **0.73**

Fraction: $\frac{73}{100}$

(b) 

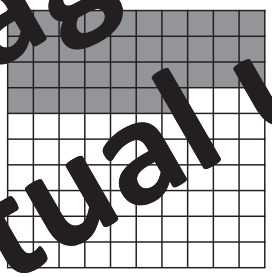
Decimal: **0.49**

Fraction: $\frac{49}{100}$

(c) 

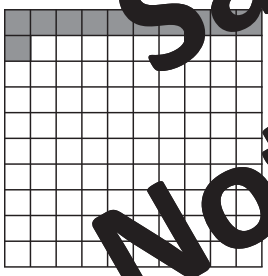
Decimal: **0.21**

Fraction: $\frac{21}{100}$

(d) 

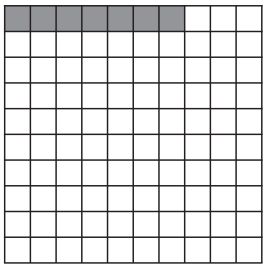
Decimal: **0.37**

Fraction: $\frac{37}{100}$

(e) 

Decimal: **0.11**

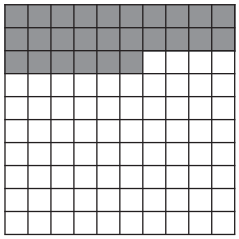
Fraction: $\frac{11}{100}$

(f) 

Decimal: **0.07**

Fraction: $\frac{7}{100}$

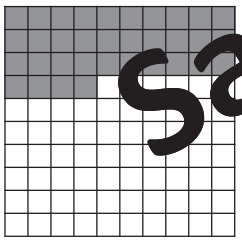
(4) For each of these diagrams, give the shaded area as a decimal and a fraction out of 100, then work out the fraction as simply as possible.

(a) 

Decimal: 0.26

Fraction of 100: $\frac{26}{100}$

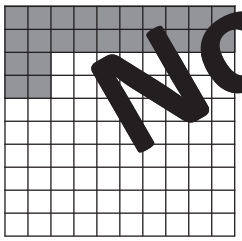
Simplest Fraction: $\frac{13}{50}$

(b) 

Decimal: 0.34

Fraction of 100: $\frac{34}{100}$

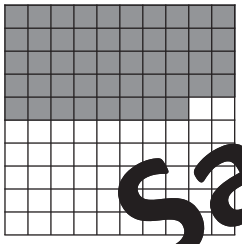
Simplest Fraction: $\frac{17}{50}$

(c) 

Decimal: 0.24

Fraction of 100: $\frac{24}{100}$

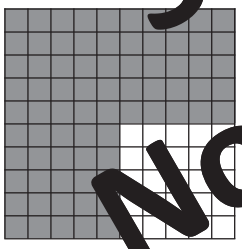
Simplest Fraction: $\frac{6}{25}$

(d) 

Decimal: 0.48

Fraction of 100: $\frac{48}{100}$

Simplest Fraction: $\frac{12}{25}$

(e) 

Decimal: 0.75

Fraction of 100: $\frac{75}{100}$

Simplest Fraction: $\frac{3}{4}$

(5) Write these fractions as decimals.

(a) $\frac{1}{5}$ = 0.2

(b) $\frac{2}{5}$ = 0.4

(c) $\frac{3}{5}$ = 0.6

(d) $\frac{4}{5}$ = 0.8

(e) $\frac{1}{8}$ = 0.125

(f) $\frac{3}{8}$ = 0.375

(g) $\frac{5}{8}$ = 0.625

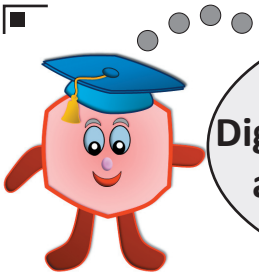
(h) $\frac{7}{8}$ = 0.875

(i) $\frac{1}{20}$ = 0.05

(j) $\frac{3}{20}$ = 0.15

(k) $\frac{7}{20}$ = 0.35

(l) $\frac{11}{20}$ = 0.55



Maths Homework this week is about:

Digit Values and Multiplying and Dividing by 10, 100, 1000 etc

Answers

Date:

Teacher:

Year 6

(1) Give the value, in words, of the digit indicated by the arrow in each of these numbers.

(a)	46	Forty	(b)	387	Three hundred
(c)	642	Two	(d)	12 463	Two thousand
(e)	31 648	Thirty thousand	(f)	49 613	Nine thousand
(g)	613 325	Six hundred thousand	(h)	1 723 384	Seven hundred thousand
(i)	9 256 327	Fifty thousand	(j)	3 426 574	Three million

(2) In each number, circle the digit equal to the value asked for.

(a)	Circle the digit equal to **Two thousand**.	12 282
(b)	Circle the digit equal to **Four hundred**.	49 494
(c)	Circle the digit equal to **Eighty thousand**.	88 787
(d)	Circle the digit equal to **Three thousand**.	633 633
(e)	Circle the digit equal to **Four hundred thousand**.	448 844
(f)	Circle the digit equal to **Seventy thousand**.	7 776 777
(g)	Circle the digit equal to **Nine million**.	9 999 339
(h)	Circle the digit equal to **Twenty thousand**.	121 212
(i)	Circle the digit equal to **Three thousand**.	5 533 355
(j)	Circle the digit equal to **Two Million**.	2 222 222

(3) Give the value, in words, of each of the digits indicated by the arrows.

(a)	3.476	Four tenths	(b)	19.73	Three hundredths
(c)	26.153	Three thousandths	(d)	18.576	Seven hundredths

(4) Write the answer to each multiplication in the box.

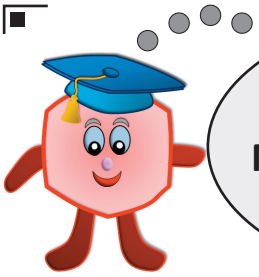
(a) 56 × 10	=	560	(b) 29 × 10	=	290
(c) 103 × 10	=	1 030	(d) 421 × 100	=	42 100
(e) 3 030 × 100	=	303 000	(f) 5 902 × 100	=	590 200
(g) 129 × 1 000	=	129 000	(h) 390 × 1 000	=	390 000
(i) 200 × 1 000	=	200 000	(j) 1 683 × 1 000	=	1 683 000
(k) 9 203 × 1 000	=	9 203 000	(l) 586 × 10 000	=	5 860 000

(5) Write the answer to each division in the box.

(a) 420 ÷ 10	=	42	(b) 1 380 ÷ 10	=	138
(c) 2 900 ÷ 10	=	290	(d) 1 700 ÷ 10	=	170
(e) 8 300 ÷ 100	=	83	(f) 12 600 ÷ 100	=	126
(g) 3 000 ÷ 100	=	30	(h) 19 000 ÷ 1 000	=	19
(i) 2 640 000 ÷ 1 000	=	2 640	(j) 1 130 000 ÷ 1 000	=	1 130
(k) 126 000 ÷ 1 000	=	126	(l) 330 000 ÷ 10 000	=	33

(6) Write the missing values for these calculations in the boxes.

(a)	99	×	10	=	990	(b)	39 000	÷	100	=	390
(c)	1600	÷	10	=	160	(d)	5	×	1 000	=	5 000
(e)	22	×	100	=	2 200	(f)	800	×	1 000	=	800 000
(g)	6 000		100	=	60	(h)	9 100	÷	10	=	910
(i)	11	×	1 000	=	11 000	(j)	301 000	÷	100	=	3 010
(k)	2 600	×	100	=	260 000	(l)	8 300	÷	10	=	830



Maths Homework this week is about:

Multiplying Decimals by Whole Numbers

Answers

Date:

Teacher:

Year 6

(1) Try to work out these multiplications in your head. (You can use paper if you need to).

(a)

1.5
0.5
0.9
4.5

× 6

3.6
7.5
2.7
13.5

(b)

1.4
2.6
1.1
3.3

× 5

7
13
5.5
16.5

(c)

0.3
1.4
2.5
0.8

× 7

2.1
9.8
17.5
5.6

(2) Find the answer to each decimal multiplication.

(a) 3.9 × 8 = 31.2 (7)

(b) 9.6 × 4 = 38.4 (2)

(c) 8.2 × 3 = 24.6

(d) 5.8 × 7 = 40.6 (5)

(e) 7.5 × 9 = 67.5 (4)

(f) 6.3 × 5 = 31.5 (1)

(g) 2.7 × 6 = 16.2 (4)

(h) 9.9 × 2 = 19.8 (1)

(i) 3.6 × 7 = 25.2 (4)

(j) 9.2 × 6 = 55.2 (1)

(k) 5.4 × 9 = 48.6 (3)

(l) 4.9 × 8 = 39.2 (7)

(3) Find the answer to each decimal multiplication.

(a)
```
  12.4
×    5
------
  62.0
  1  2
```

(b)
```
  36.3
×    4
------
 145.2
 2  1
```

(c)
```
  23.7
×    6
------
 142.2
 2  4
```

(d)
```
  54.5
×    7
------
 458.5
 3  3
```

(e)
```
  17.6
×    9
------
 158.4
 6  5
```

(f)
```
  39.9
×    3
------
 119.7
 2  2
```

(g)
```
  28.2
×    8
------
 225.6
 6  1
```

(h)
```
  28.3
×    4
------
 113.2
 1  3
```

(i)
```
  47.3
×    7
------
 331.1
 5  2
```

(4) Multiply each decimal by the two digit whole number.

(a)
```
   8.7
× 32
------
  174
 261
 2  1
------
 278.4
```

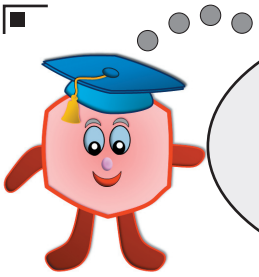
(b)
```
   4.5
× 29
------
  405
 900
 4  1
------
 130.5
```

(c)
```
   6.7
× 45
------
  335
 268
 3  2
------
 301.5
 1  1
```

(d)
```
   9.3
× 26
------
  558
 186
 1  1
------
 241.8
 1
```

(e)
```
   7.8
× 57
------
  546
 390
 5  4
------
 444.6
 1
```

(f)
```
   8.4
× 92
------
  168
 756
 7  3
------
 772.8
 1
```



Maths Homework this week is about:

Divisions with Decimal Answers and Rounding Problems

Answers

Date:

Teacher:

Year 6

All of the division questions here have decimal answers.
By showing your working, find the answer to each question.

(1) Find the answer if 24 is divided by 5.

$$\begin{array}{r} 4{\cdot}8 \\ 5\,\overline{)\,2\,4{\cdot}^{4}0} \end{array}$$

Answer: **4.8**

(2) How many times does 8 go into 62.

$$\begin{array}{r} 7{\cdot}7\,5 \\ 8\,\overline{)\,6\,2{\cdot}^{6}0^{4}0} \end{array}$$

Answer: **7.75**

(3) Divide 38 by 4.

$$\begin{array}{r} 9{\cdot}5 \\ 4\,\overline{)\,3\,8{\cdot}^{2}0} \end{array}$$

Answer: **9.5**

(4) Calculate the answer if 82 is divided by 8.

$$\begin{array}{r} 1\,0{\cdot}2\,5 \\ 8\,\overline{)\,8\,2{\cdot}^{2}0^{4}0} \end{array}$$

Answer: **10.25**

(5) A pile of sand weighing 93 kg was divided into five equal piles.
Give the weight of each pile.

$$\begin{array}{r} 1\,8{\cdot}6 \\ 5\,\overline{)\,9^{4}3{\cdot}^{3}0} \end{array}$$

Answer: **18.6 kg**

(6) £62 was shared equally between four children.
How much did each child get?

$$\begin{array}{r} 1\,5{\cdot}5 \\ 4\,\overline{)\,6^{2}2{\cdot}^{2}0} \end{array}$$

Answer: **£15.50**

(7) A ribbon of length 98 cm was cut into eight equal pieces.
How long was each piece?

$$\begin{array}{r} 1\,2{\cdot}2\,5 \\ 8\,\overline{)\,9^{1}8{\cdot}^{2}0^{4}0} \end{array}$$

Answer: **12.25 cm**

(8) 99 litres of water was divided exactly between five barrels.
How much water was in each barrel?

$$\begin{array}{r} 1\,9{\cdot}8 \\ 5\,\overline{)\,9^{4}9{\cdot}^{4}0} \end{array}$$

Answer: **19.8 litres**

(9) Eight items cost £110 in total. If they each cost the same amount, how much does each item cost?

$$\begin{array}{r} 1\,3{\cdot}7\,5 \\ 8\,\overline{)\,1\,1^{3}0{\cdot}^{6}0^{4}0} \end{array}$$

Answer: **£13.75**

(10) A square has an area of 94 cm². If it is split into four identical smaller squares, what is the area of each one?

$$\begin{array}{r} 2\,3{\cdot}5 \\ 4\,\overline{)\,9^{1}4{\cdot}^{2}0} \end{array}$$

Answer: **23.5 cm²**

Answers

In these questions you should round up the answer to the accuracy asked for.

(10) The number of visitors to a zoo one week was 4793. What is this to the nearest hundred?

Answer

4 800

(11) The number of sweets in a large jar is 168. What is this number to the nearest 10?

Answer

170

(12) A school shop made £45.26 on five days. By dividing this by five, find the mean average amount taken per day. Give your answer to the nearest penny.

$$\begin{array}{r|l} & 9{\cdot}0\,5\,2 \\ \hline 5 & 4\,5{\cdot}2\,{}^{2}6\,{}^{1}0 \end{array}$$

Answer

£9.05

(13) Three children had a total of £34.17. Divide this by three to give the mean average amount per person. Give your answer to the nearest 10p.

$$\begin{array}{r|l} & 1\,1{\cdot}3\,9 \\ \hline 3 & 3\,{}^{4}1{\cdot}{}^{1}7 \end{array}$$

Answer

£11.40

(14) A runner ran a total of 35.58 miles over six days. Divide this number by six to give the average distance ran each day. Give the answer to the nearest mile.

$$\begin{array}{r|l} & 5{\cdot}9\,3 \\ \hline 6 & 3\,5{\cdot}{}^{5}8 \end{array}$$

Answer

6 miles

(15) Divide 30.88 by eight and give your answer to the nearest whole number.

$$\begin{array}{r|l} & 3{\cdot}8\,6 \\ \hline 8 & 3\,0{\cdot}{}^{6}8\,{}^{4}8 \end{array}$$

Answer

4 (to the nearest whole number)

(16) A farm animal ate 34.37 kg of food in seven days. Divide this by seven to find the average weight of food eaten per day. Give your answer to the nearest kilogram.

$$\begin{array}{r|l} & 4{\cdot}9\,1 \\ \hline 7 & 3\,4{\cdot}3\,7 \end{array}$$

Answer

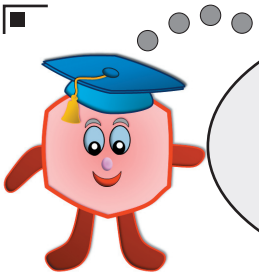
5 kg

(17) Divide 77.67 by nine and give your answer to one decimal place.

$$\begin{array}{r|l} & 8{\cdot}6\,3 \\ \hline 9 & 7\,7{\cdot}{}^{5}6\,{}^{2}7 \end{array}$$

Answer

8.6 (to one DP)



Maths Homework this week is about:

Fraction, Decimal and Percentage Equivalents

Answers

Date:

Teacher:

Year 6

(1) Give each of these percentages as a decimal.

(a)	46 %	=	0.46	(b)	37 %	=	0.37
(c)	17 %	=	0.17	(d)	62 %	=	0.62
(e)	78 %	=	0.78	(f)	99 %	=	0.99
(g)	30 %	=	0.3	(h)	70 %	=	0.7
(i)	9 %	=	0.09	(j)	3 %	=	0.03

(2) Give each of these decimals as a percentage.

(a)	0.56	=	56 %	(b)	0.19	=	19 %
(c)	0.88	=	88 %	(d)	0.93	=	93 %
(e)	0.4	=	40 %	(f)	0.8	=	80 %
(g)	0.5	=	50 %	(h)	0.01	=	1 %
(i)	0.04	=	4 %	(j)	0.06	=	6 %

(3) Give each of these fractions as a percentage.

(a)	$\frac{13}{100}$	=	13 %	(b)	$\frac{49}{100}$	=	49 %
(c)	$\frac{91}{100}$	=	91 %	(d)	$\frac{21}{100}$	=	21 %
(e)	$\frac{19}{100}$	=	19 %	(f)	$\frac{37}{100}$	=	37 %
(g)	$\frac{1}{100}$	=	1 %	(h)	$\frac{9}{100}$	=	9 %
(i)	$\frac{7}{100}$	=	7 %	(j)	$\frac{71}{100}$	=	71 %

(4) Give each of these percentages as a fraction.

(a)	81 %	=	$\frac{81}{100}$	(b)	77 %	=	$\frac{77}{100}$
(c)	17 %	=	$\frac{17}{100}$	(d)	23 %	=	$\frac{23}{100}$
(e)	31 %	=	$\frac{31}{100}$	(f)	11 %	=	$\frac{11}{100}$
(g)	99 %	=	$\frac{99}{100}$	(h)	59 %	=	$\frac{59}{100}$
(i)	3 %	=	$\frac{3}{100}$	(j)	41 %	=	$\frac{41}{100}$

(5) Fill in the missing values in this table. Give fractions in the simplest form.

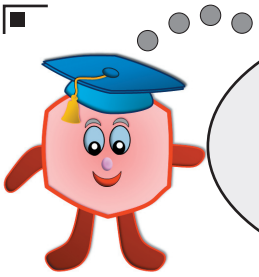
	Fraction	Decimal	Percentage
(a)	$\frac{1}{10}$	0.1	10 %
(b)	$\frac{2}{5}$	0.4	40 %
(c)	$\frac{7}{10}$	0.7	70 %
(d)	$\frac{1}{4}$	0.25	25 %
(e)	$\frac{3}{4}$	0.75	75 %
(f)	$\frac{4}{5}$	0.8	80 %
(g)	$\frac{1}{8}$	0.125	12.5 %
(h)	$\frac{1}{40}$	0.025	2.5 %
(i)	$\frac{7}{10}$	0.7	70 %
(j)	$\frac{3}{5}$	0.6	60 %
(k)	$\frac{1}{5}$	0.2	20 %
(l)	$\frac{16}{25}$	0.64	64 %
(m)	$\frac{22}{25}$	0.88	88 %
(n)	$\frac{7}{25}$	0.28	28 %
(o)	$\frac{3}{25}$	0.12	12 %
(p)	$\frac{5}{8}$	0.625	62.5 %
(q)	$\frac{7}{8}$	0.875	87.5 %
(r)	$\frac{9}{10}$	0.9	90 %
(s)	$\frac{24}{25}$	0.96	96 %
(t)	$\frac{3}{50}$	0.06	6 %

(6) (a) A pupil scored 18 out of 20 in a test.
What is this as a percentage?

90 %

(b) Another pupil scored 13 out of 20 in the test.
What is this as a percentage?

65 %



Maths Homework this week is about:

Ratio Problems

Answers

Date:

Teacher:

Year 6

(1) This recipe makes 10 cup cakes. Give the quantities for the number of cakes below:

		(a) 20 cakes	(b) 15 cakes	(c) 35 cakes
Flour	200 g	400 g	300 g	700 g
Butter	180 g	360 g	270 g	630 g
Sugar	160 g	320 g	240 g	560 g
Eggs	4	8	6	14

(2) Here is a recipe to make 25 lemon shortbread biscuits.
Give the quantities for the number of biscuits below:

		(a) 50 biscuits	(b) 5 biscuits	(c) 80 biscuits
Flour	450g	900 g	90 g	1 440 g
Butter	300g	600 g	60 g	960 g
Sugar	150g	300 g	30 g	480 g
Lemon essence	10g	20 g	2 g	32 g

(3) The ratio for the amounts of money in each pair of boxes is given.
Find the missing amount of money in each pair of boxes.

	Ratio							
(a)	1 : 3	£7 : £21	(b)	1 : 5	£9 : £45	(c)	1 : 2	£4.50 : £9
(d)	1 : 6	£2.50 : £15	(e)	1 : 7	£1.50 : £10.50	(f)	1 : 9	£8 : £72
(g)	1 : 12	£9 : £108	(h)	1 : 8	£1.25 : £10	(i)	1 : 4	£8.50 : £34
(j)	1 : 11	£1.11 : £12.21	(k)	1 : 10	£9.61 : £96.10	(l)	1 : 7	£0.40 : £2.80

(4) Helen and Mark have ages in the ratio 1 : 5.
If Helen is 7 years old, how old is Mark?

7 × 5 = 35

35 years old

(5) Kim and Ali have ages in the ratio 1 : 3.
If Ali is 27 years old, how old is Kim?

27 ÷ 3 = 9

9 years old

(6) The ratio of water to orange juice in a drink is 12 : 1.
(a) If you use 120 ml of water, how much orange juice do you need?

120 ÷ 12 = 10

10 ml of orange juice

(b) If you use 15 ml of orange juice, how much water must you add to this?

15 × 12 = 180

180 ml of water

(7) The ratio of oak trees to ash trees in a wood is 1 : 6.
If there are 72 ash trees, how many oak trees are there?

72 ÷ 6 = 12

12 oak trees

(8) The ratio of staff to pupils in a small school is 1 : 5.
If there are 17 members of staff, how many pupils are there?

17 × 5 = 85

85 pupils

(9) The ratio of cows to sheep on a farm is 1 : 16.
There are 112 sheep. How many cows are there?

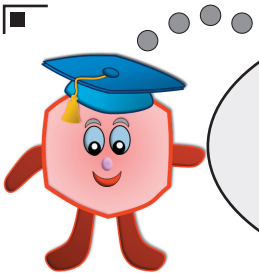
112 ÷ 16 = 7

7 cows

(10) The ratio of books to CDs in a library is 9 : 2.
If there are 2700 books, how many CDs are there?

2700 ÷ 9 = 300
300 × 2 = 600

600 CDs



Maths Homework this week is about:

Percentages

Answers

Date:

Teacher:

Year 6

(1) (a) Find 10% of 240

240 ÷ 10 = 24

24

(b) Find 10% of 143

143 ÷ 10 = 14.3

14.3

(c) Find 20% of 150

10% is 150 ÷ 10 = 15

20% is 15 x 2 = 30

30

(d) Find 20% of 44

10% is 44 ÷ 10 = 4.4

20% is 4.4 x 2 = 8.8

8.8

(e) Find 40% of £70

10% is 70 ÷ 10 = 7

40% is 7 x 4 = 28

£28

(f) Find 60% of 55 m.

10% is 55 ÷ 10 = 5.5

60% is 5.5 x 6 = 33

33 m

(2) - SALE - 15% off

For each of the following prices, find 15%, and then subtract this to find the sale value.

(a) Price £50

10% is £5

5% is £2.50

15% is £7.50

Sale Price: 50 - 7.50 = **£42.50**

(b) Price £80

10% is £8

5% is £4

15% is £12

Sale Price: 80 - 12 = **£68**

(c) Price £12

10% is £1.20

5% is £0.60

15% is £1.80

Sale Price: 12 - 1.80 = **£10.20**

(d) Price £160

10% is £16

5% is £8

15% is £24

Sale Price: 160 - 24 = **£136**

(e) Price £36

10% is £3.60

5% is £1.80

15% is £5.40

Sale Price: 36 - 5.40 = **£30.60**

(f) Price £14

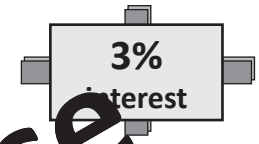
10% is £1.40

5% is £0.70

15% is £2.10

Sale Price: 14 - 2.10 = **£11.90**

(3) A bank offers 3% interest per year on savings.
For each of these values, find 3%, and then add this to the amount in the account to find the total in the account after the interest has been added.

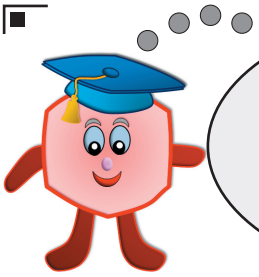


	Amount in account	3% interest	Total after interest is added
(a)	£200	1% is £2 3% is £6	200 + 6 £206
(b)	£500	1% is £5 3% is £15	500 + 15 £515
(c)	£450	1% is £4.50 3% is £13.50	450 + 13.50 £463.50
(d)	£75	1% is £0.75 3% is £2.25	75 + 2.25 £77.25
(e)	£3000	1% is £30 3% is £90	3000 + 90 £3090
(f)	£6750	1% is £67.50 3% is £202.50	6750 + 202.50 £6952.50

(4) To find 17.5%, we can find 10% + 5% + 2.5%.

Find 17.5% of each of these amounts.

(a) 40		(b) 88		(c) 180		(d) 900	
10% is	4	10% is	8.8	10% is	18	10% is	90
5% is	2	5% is	4.4	5% is	9	5% is	45
2.5% is	1	2.5% is	2.2	2.5% is	4.5	2.5% is	22.5
17.5% is	7	17.5% is	15.4	17.5% is	31.5	17.5% is	157.5



Maths Homework this week is about:

Similar Shapes

Answers

Date:

Teacher:

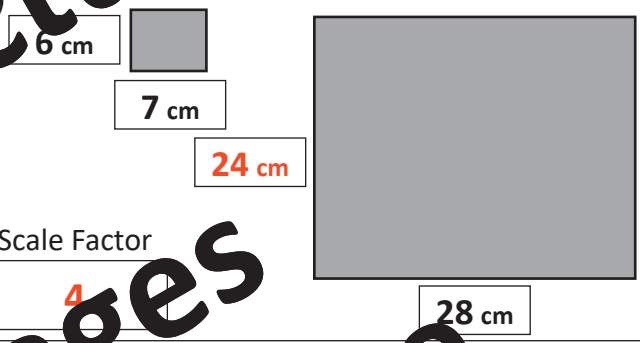
Year 6

(1) Each pair of rectangles is similar. For each pair, find the scale factor for the lengths, and then find the missing length, indicated by the box. (The diagrams are not drawn to scale).

(a)

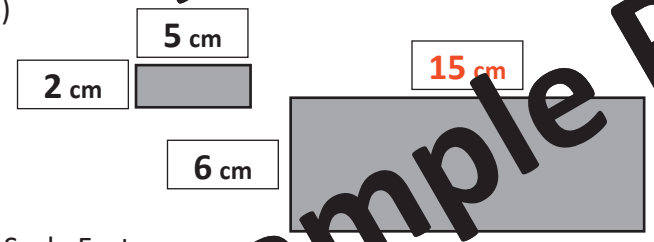
Scale Factor: **2**

(b)



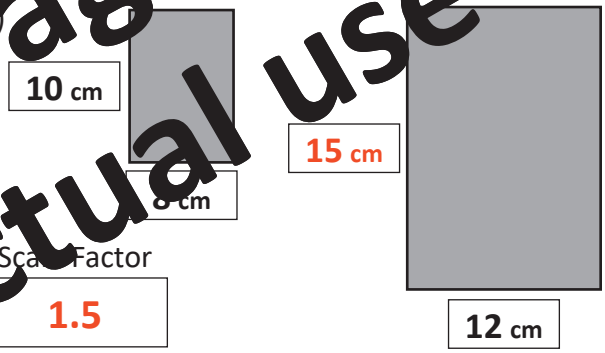
Scale Factor: **4**

(c)



Scale Factor: **3**

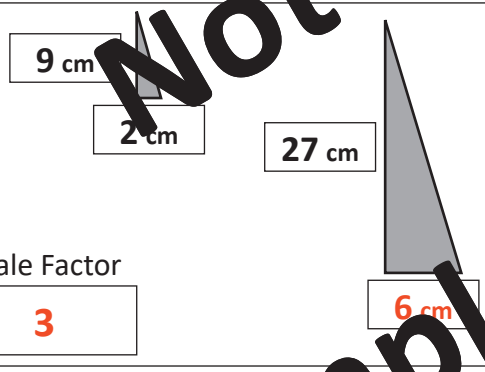
(d)



Scale Factor: **1.5**

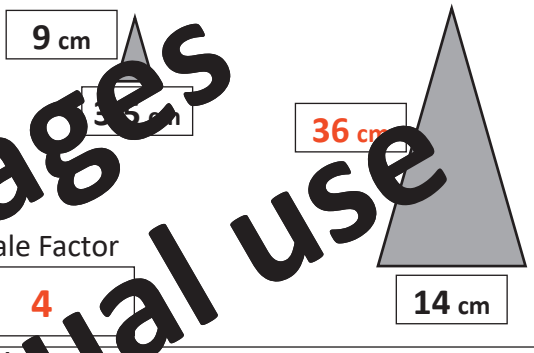
(2) These pairs of triangles are similar. Find the scale factor and missing length, indicated by the box, for each one.

(a)



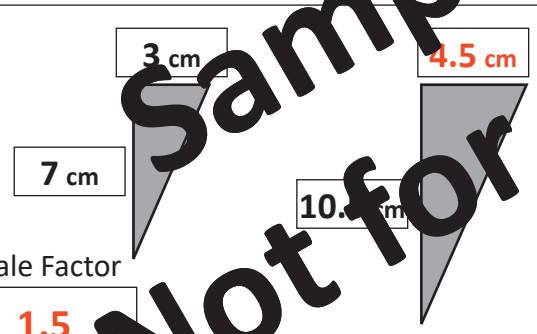
Scale Factor: **3**

(b)



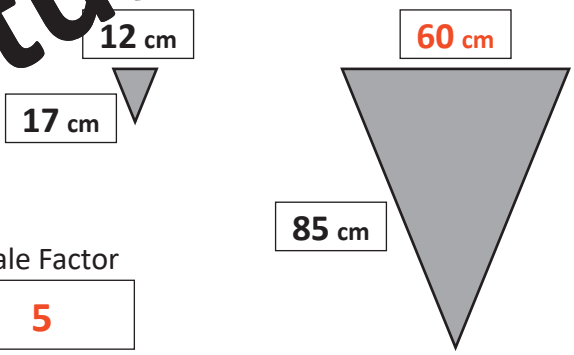
Scale Factor: **4**

(c)



Scale Factor: **1.5**

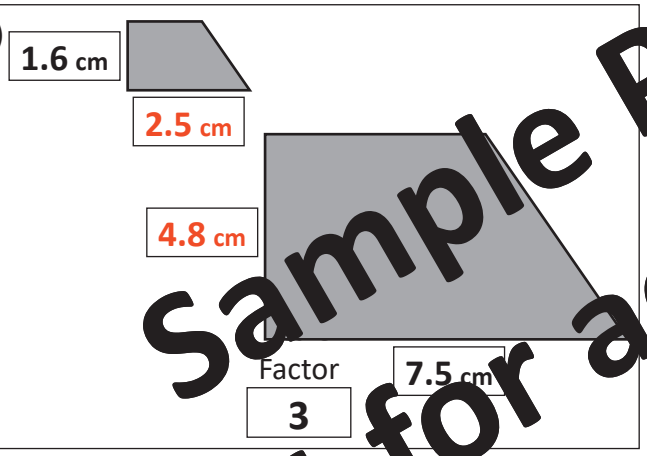
(d)



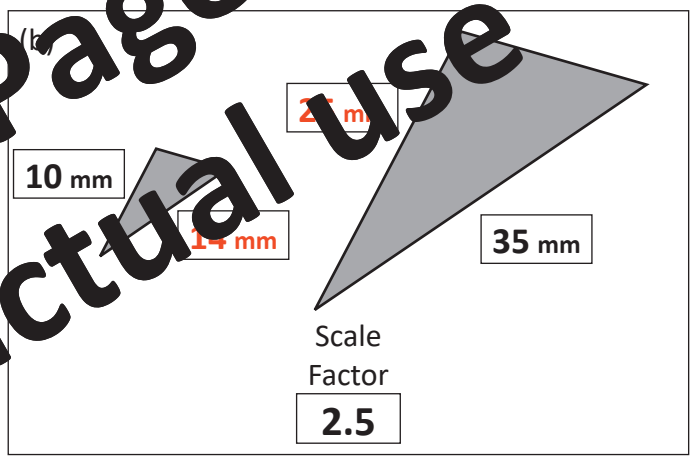
Scale Factor: **5**

(3) Use the given scale factor to find the missing side lengths in each pair of similar shapes.
(The diagrams are not drawn to scale).

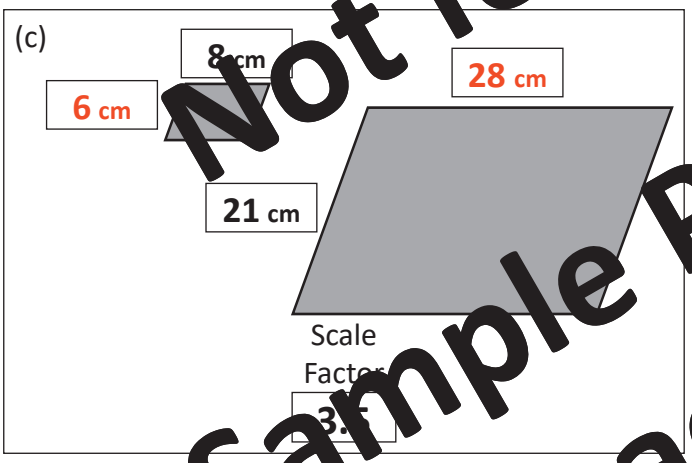
(a)



(b)



(c)



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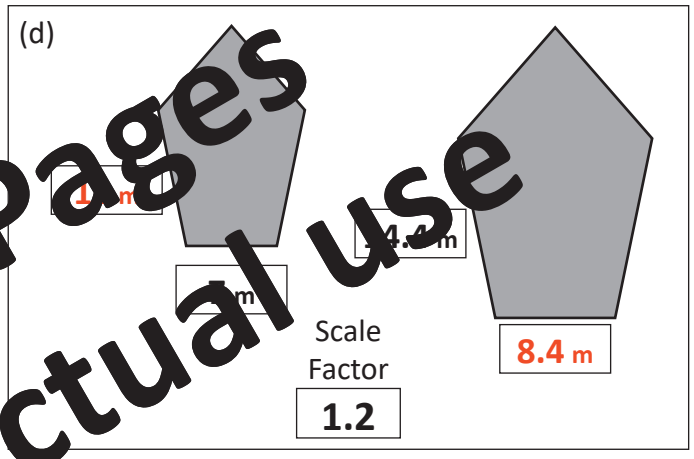
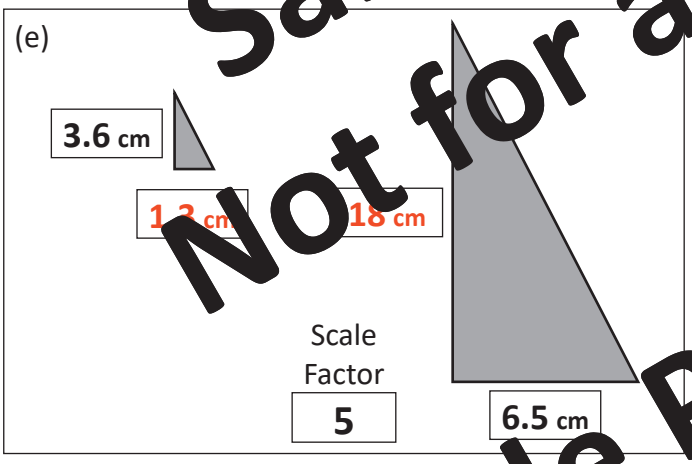
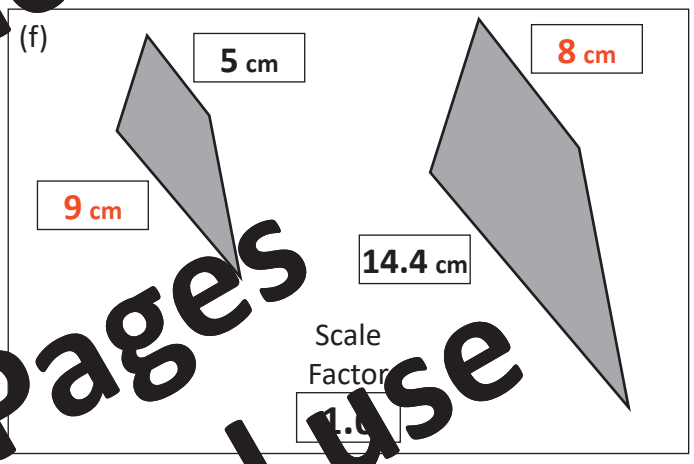


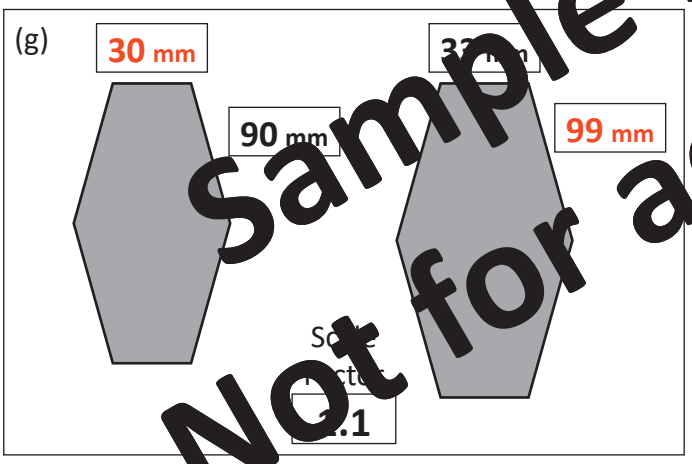
(e)



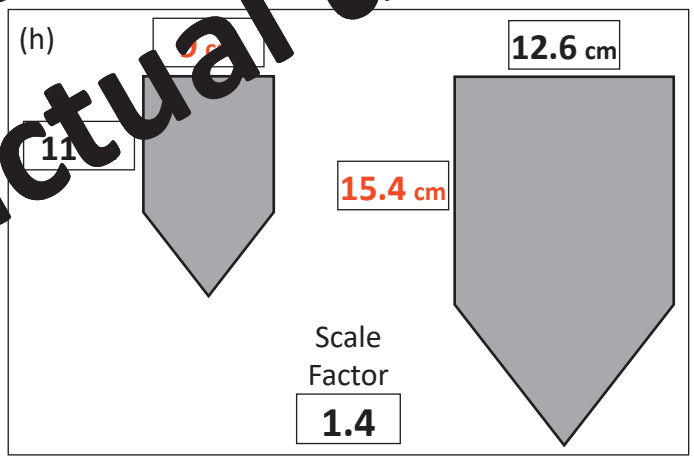
(f)

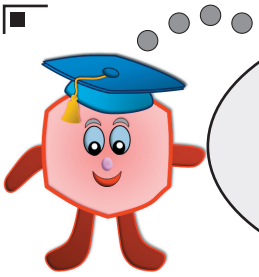


(g)



(h)





Maths Homework this week is about:

Unequal Sharing

Answers

Date:

Teacher:

Year 6

(1) A running track is 400m long. A runner tripped up $\frac{2}{5}$ of the way around the track. How far had the runner ran when they tripped up?

400 ÷ 5 = 80

80 x 2 = 160

Distance: **160 m**

(2) A box contained 36 sweets. Sue ate $\frac{4}{9}$ of the sweets and Joe ate the rest.

How many sweets did they each eat?

36 ÷ 9 = 4

Sue: 5 × 4 = 20

Joe: 4 × 4 = 16

Sue: **20**

Joe: **16**

(3) Sasha and Kai share £50. If Sasha gets £6 more than Kai, how much do they each get?

50 - 6 = 44

44 ÷ 2 = 22

Kai gets £22

Sasha gets £22 + 6

Kai: **22**

Sasha: **28**

(4) The total area of a field is 24 m². The area planted with carrots is 9 m² more than the area planted with potatoes. Find the area for each crop.

24 - 9 = 15

15 ÷ 2 = 7.5

Potatoes: 7.5

Carrots: 7.5 + 9

Potatoes: **7.5 m²**

Carrots: **16.5 m²**

(5) The total height of an elm tree and a birch tree is 18 m. The elm tree is 4 m taller than the birch tree. Find the height of both trees.

18 - 4 = 14

14 ÷ 2 = 7

Birch: 7

Elm: 7 + 4

Birch: **7 m**

Elm: **11 m**

(6) Karen spent 70 minutes watching TV. She watched a drama and a comedy. If the drama lasted for $\frac{3}{7}$ of the time, give the length of both programmes.

70 ÷ 7 = 10

Drama: 3 x 10 = 30

Comedy: 4 x 10 = 40

Drama: **30**

Comedy: **40**

(7) A parent and a child paid a total of £30 to visit a museum. The child price was £8 cheaper than the parent price. Find the price for each.

30 - 8 = 22

22 ÷ 2 = 11

Child: 11

Parent: 11 + 8

Child: £11

Parent: £19

(8) Sheba ate $\frac{2}{11}$ of the dog biscuits from her bowl. She ate 6 biscuits.

How many biscuits were in the bowl at the beginning?

$\frac{2}{11}$ is 6 biscuits, so

$\frac{1}{11}$ is 3 biscuits

Therefore $\frac{11}{11}$ = 11 × 3 = 33 biscuits

Number of biscuits: 33

(9) A field has an area of 56 m². $\frac{3}{8}$ of the field has been planted with oats and the rest has been planted with wheat.
What area of the field has been planted with each?

56 ÷ 8 = 7

Oats: 7 × 3

Wheat: 7 × 5

Oats: 21 m²

Wheat: 35 m²

(10) Two lighthouses have a total height of 22 m. The tall lighthouse is 5 m taller than the short lighthouse. Find the height of each.

22 - 5 = 17

17 ÷ 2 = 8.5

Short lighthouse: 8.5

Tall lighthouse: 8.5 + 5

Short lighthouse: 8.5 m²

Tall lighthouse: 13.5 m²

(11) A red money box and a yellow money box have a total of £12.50 in them. If the red money box has £1.50 more than the yellow money box, find out how much money is in each box.

12.50 - 1.50 = 11

11 ÷ 2 = 5.50

Yellow box: 5.50

Red box: 5.50 + 1.50

Yellow box: £5.50

Red box: £7.00

(12) Paul and Bob built a wall. There are a total of 27 rows of bricks in the wall. If Paul built 3 more rows than Bob, how many rows did each build?

27 - 3 = 24

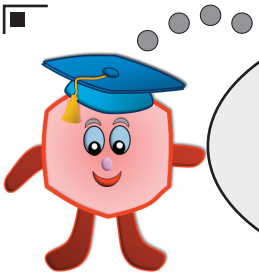
24 ÷ 2 = 12

Bob: 12

Paul: 12 + 3

Bob: 12

Paul: 15



Maths Homework this week is about:

Simple Formulae

Answers

Date:

Teacher:

Year 6

(1) Find the value of **3m + 8** when:

(a) m = 2	3 × 2 + 8	= 6 + 8	=	14
(b) m = 5	3 × 5 + 8	= 15 + 8	=	23
(c) m = 10	3 × 10 + 8	= 30 + 8	=	38
(d) m = 20	3 × 20 + 8	= 60 + 8	=	68
(e) m = 30	3 × 30 + 8	= 90 + 8	=	98

(2) Find the value of **7t + 9** when:

(a) t = 3	7 × 3 + 9	= 21 + 9	=	30
(b) t = 6	7 × 6 + 9	= 42 + 9	=	51
(c) t = 8	7 × 8 + 9	= 56 + 9	=	65
(d) t = 16	7 × 16 + 9	= 112 + 9	=	121
(e) t = 20	7 × 20 + 9	= 140 + 9	=	149

(3) Find the value of **12r + 11** when:

(a) r = 1	12 × 1 + 11	= 12 + 11	=	23
(b) r = 0.5	12 × 0.5 + 11	= 6 + 11	=	17
(c) r = 0.2	12 × 0.2 + 11	= 2.4 + 11	=	13.4
(d) r = 0.7	12 × 0.7 + 11	= 8.4 + 11	=	19.4
(e) r = 2	12 × 2 + 11	= 24 + 11	=	35

(4) Find the value of **5e - 4** when:

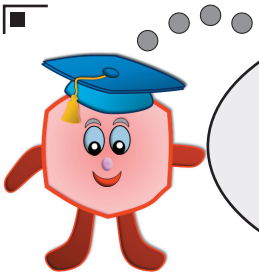
(a) e = 5	5 × 5 - 4	= 25 - 4	=	21
(b) e = 6	5 × 6 - 4	= 30 - 4	=	26
(c) e = 7	5 × 7 - 4	= 35 - 4	=	31
(d) e = 10	5 × 10 - 4	= 50 - 4	=	46
(e) e = 20	5 × 20 - 4	= 100 - 4	=	96

(5) Find the value of **9u - 7** when:

(a) u = 3	9 × 3 - 7	= 27 - 7	=	20
(b) u = 6	9 × 6 - 7	= 54 - 7	=	47
(c) u = 9	9 × 9 - 7	= 81 - 7	=	74
(d) u = 12	9 × 12 - 7	= 108 - 7	=	101
(e) u = 24	9 × 24 - 7	= 216 - 7	=	209

(6) Find the value of **6w - 14** when:

(a) w = 1	6 × 1 - 14	= 6 - 14	=	-8
(b) w = 2	6 × 2 - 14	= 12 - 14	=	-2
(c) w = 5	6 × 5 - 14	= 30 - 14	=	16
(d) w = 0.5	6 × 0.5 - 14	= 3 - 14	=	-11
(e) w = 2.5	6 × 2.5 - 14	= 15 - 14	=	1



Maths Homework this week is about:

Number Sequences

Answers

Date:

Teacher:

Year 6

(1) Find the missing number in each of these number sequences and give the rule to get from one term to the next.

(a)	7	10	13	16	19	Rule:	Add 3
(b)	1	9	17	25	33	Rule:	Add 8
(c)	61	56	51	46	41	Rule:	Take 5
(d)	32	39	46	53	60	Rule:	Add 7
(e)	13	9	5	1	-3	Rule:	Take 4
(f)	0	12	24	36	48	Rule:	Add 12
(g)	27	16	5	-6	-17	Rule:	Take 11
(h)	-5	11	27	43	59	Rule:	Add 16

(2) The first number and term to term rule for each sequence is given below.
Find the next four terms in each sequence.

(a)	Rule:	Add 9	7	16	25	34	43
(b)	Rule:	Take 6	21	15	9	3	-3
(c)	Rule:	Add 15	2	17	32	47	62
(d)	Rule:	Take 13	54	41	28	15	2
(e)	Rule:	Take 7	8	1	-6	-13	-20
(f)	Rule:	Add 12	5	17	29	41	53
(g)	Rule:	Add 21	-10	11	32	53	74
(h)	Rule:	Take 21	100	79	58	37	16

(3) Find the first five terms of the sequence with the rule **3n + 1**

n	1	2	3	4	5
3n + 1	4	7	10	13	16

(4) Find the first five terms of the sequence with the rule **4n + 6**

n	1	2	3	4	5
4n + 6	10	14	18	22	26

(5) Find the first five terms of the sequence with the rule **8n - 3**

n	1	2	3	4	5
8n - 3	5	13	21	29	37

(6) Find the first five terms of the sequence with the rule **12n - 9**

n	1	2	3	4	5
12n - 9	3	15	27	39	51

(7) Give the nth term rule for each of these sequences.

(a) 9, 11, 13, 15, 17 — n^{th} term: **2n + 7**

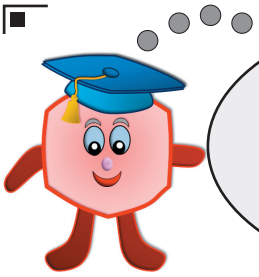
(b) 2, 6, 10, 14, 18 — n^{th} term: **4n - 2**

(c) 9, 17, 25, 33, 41 — n^{th} term: **8n + 1**

(d) 3, 12, 21, 30, 39 — n^{th} term: **9n - 6**

(e) 15, 20, 25, 30, 35 — n^{th} term: **5n + 10**

(f) 1, 8, 15, 22, 29 — n^{th} term: **7n - 6**



Maths Homework this week is about:

Missing Number Problems

Answers

Date:

Teacher:

Year 6

(1) In each set of boxes, the number in the top box is found by adding the two numbers in the bottom boxes. Find the missing number in each set of boxes.

(a) 36 | 15 | 21

(b) 63 | 23 | 41

(c) 60 | 29 | 31

(d) 104 | 48 | 56

(e) 171 | 98 | 73

(f) 231 | 126 | 105

(g) 400 | 213 | 187

(h) 475 | 192 | 283

(i) 548 | 222 | 326

(j) 999 | 272 | 727

(k) 951 | 642 | 309

(l) 783 | 461 | 322

(2) Find the missing number in each of the following calculations.

(a) 8 × 9 = 72

(b) 207 + 231 = 438

(c) 76 + 28 = 98

(d) 216 ÷ 24 = 9

(e) 108 ÷ 9 = 12

(f) 191 - 63 = 128

(g) 93 + 76 = 169

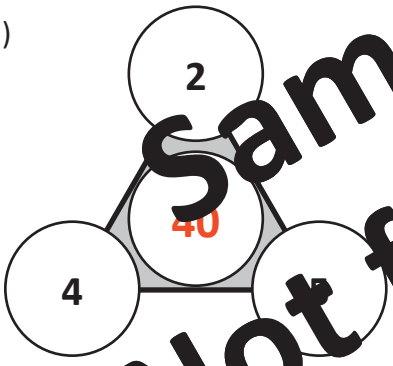
(h) 280 ÷ 35 = 8

(i) 7 × 15 = 105

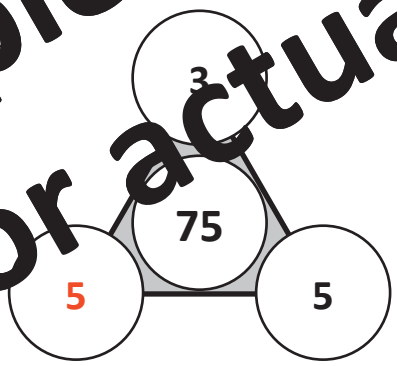
(j) 94 + 429 = 513

(3) The three numbers at the corners of each triangle are multiplied to give the number in the centre. Find the missing number in each question.

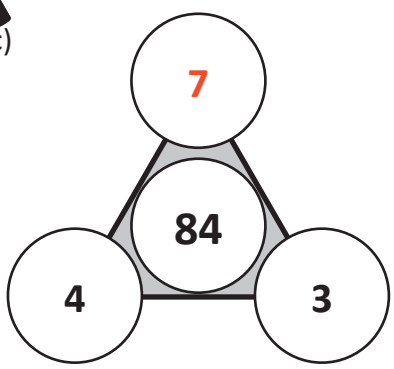
(a)



(b)



(c)



(4) Here is a missing number problem.

3 × ☐ + 4 = 19

Instead of the box, we could use a letter to stand for the missing number. For example:

3 × t + 4 = 19

Use the letter **t** instead of the box to write each of the following missing number problems, and then for each one, find the value of t.

(a) 5 × ☐ = 45

5 × t = 45
t = 45 ÷ 5
t = 9

(b) 7 × ☐ = 77

7 × t = 77
t = 77 ÷ 7
t = 11

(c) 2 × ☐ + 12 = 26

2 × t + 12 = 26
2 × t = 14
t = 14 ÷ 2
t = 7

(d) 3 × ☐ + 11 = 35

3 × t + 11 = 35
3 × t = 24
t = 24 ÷ 3
t = 8

(e) 5 × ☐ - 9 = 51

5 × t - 9 = 51
5 × t = 60
t = 60 ÷ 5
t = 12

(f) 4 × ☐ - 7 = 13

4 × t - 7 = 13
4 × t = 20
t = 20 ÷ 4
t = 5

(g) 11 × ☐ + 6 = 105

11 × t + 6 = 105
11 × t = 99
t = 99 ÷ 11
t = 9

(h) 12 × ☐ - 10 = 74

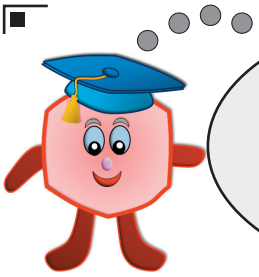
12 × t - 10 = 74
12 × t = 84
t = 84 ÷ 12
t = 7

(i) 9 × ☐ + 6 = 114

9 × t + 6 = 114
9 × t = 108
t = 108 ÷ 9
t = 12

(j) 14 × ☐ - 8 = 62

14 × t - 8 = 62
14 × t = 70
t = 70 ÷ 14
t = 5



Maths Homework this week is about:
Equations with Two Unknowns, and Two Variable Combinations

Answers

Date:

Teacher:

Year 6

(1) Circle the pair of values which work in each question.

(a) 3 × ⬡ + 2 × △ = 16

⬡ = 2, △ = 4	⬡ = 5, △ = 1	⬡ = 4, △ = 2	⬡ = 1, △ = 5

(b) 4 × ⬡ + 3 × △ = 26

⬡ = 7, △ = 1	⬡ = 1, △ = 7	⬡ = 3, △ = 5	⬡ = 5, △ = 3

(c) 7 × ⬡ - 5 × △ = 32

⬡ = 3, △ = 2	⬡ = 6, △ = 2	⬡ = 2, △ = 5	⬡ = 2, △ = 6

(d) 6 × ⬡ + 2 × △ = 44

⬡ = 6, △ = 2	⬡ = 2, △ = 6	⬡ = 7, △ = 1	⬡ = 1, △ = 7

(e) 9 × ⬡ - 2 × △ = 15

⬡ = 4, △ = 3	⬡ = 7, △ = 5	⬡ = 5, △ = 7	⬡ = 3, △ = 1

(f) 8 × ⬡ - 4 × △ = 68

⬡ = 9, △ = 4	⬡ = 4, △ = 9	⬡ = 3, △ = 10	⬡ = 10, △ = 3

(2) Circle the pair of values which work in each equation.

(a) 6 × **a** + 2 × **b** = 28

a = 4, **b** = 1	**a** = 3, **b** = 5	**a** = 1, **b** = 4	**a** = 5, **b** = 3

(b) 7 × **a** - 4 × **b** = 6

a = 2, **b** = 2	**a** = 3, **b** = 3	**a** = 1, **b** = 1	**a** = 3, **b** = 5

(c) 4 × **a** + 9 × **b** = 42

a = 4, **b** = 3	**a** = 2, **b** = 4	**a** = 6, **b** = 2	**a** = 2, **b** = 6

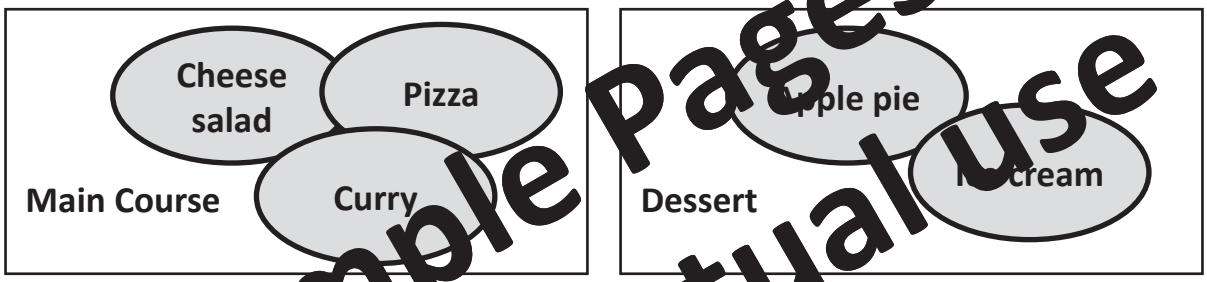
(d) 8 × **a** - 5 × **b** = 46

a = 10, **b** = 12	**a** = 6, **b** = 5	**a** = 5, **b** = 6	**a** = 12, **b** = 10

(e) 6 × **a** + 7 × **b** = 62

a = 1, **b** = 8	**a** = 8, **b** = 1	**a** = 10, **b** = 2	**a** = 2, **b** = 10

(3) A school canteen offered the following menu choices one day.



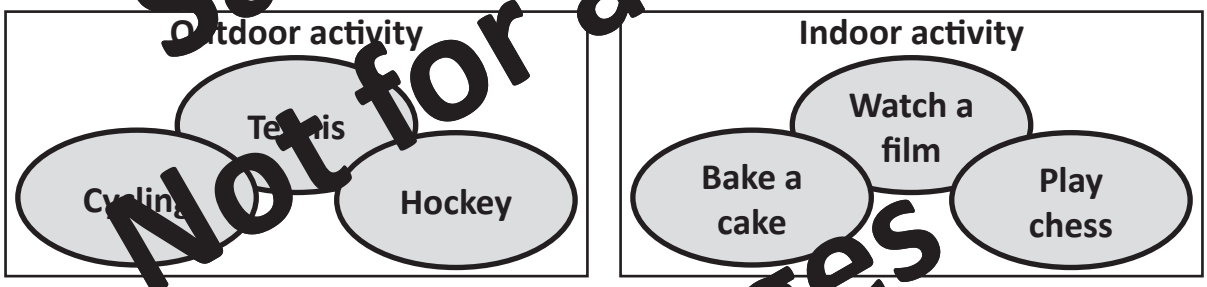
A pupil is allowed one **main course** and one **dessert**.

List, in the box on the right, all the possible combinations they could have.

Cheese salad & Apple pie
Cheese salad & Ice cream
Pizza & Apple pie
Pizza & Ice cream
Curry & Apple pie
Curry & Ice cream

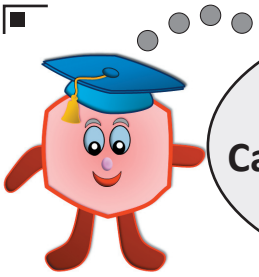
(4) A school activity day offers pupils a choice of one **outdoor activity** followed by one **indoor activity**.

The following options are available:



List, in the box on the right, all the possible combinations of activities that a pupil could do.

Cycling & Bake a cake
Cycling & Watch a film
Cycling & Play chess
Tennis & Bake a cake
Tennis & Watch a film
Tennis & Play chess
Hockey & Bake a cake
Hockey & Watch a film
Hockey & Play chess



Maths Homework this week is about:

Calculating and Converting Units of Length

Answers

Date:

Teacher:

Year 6

(1) Use the conversion fact below to find the missing approximate values in the following table.

	Miles	Kilometres
(a)	15	24
(b)	25	40
(c)	40	64
(d)	10	16
(e)	0.5	0.8
(f)	2.5	4
(g)	7.5	12
(h)	100	160
(i)	5.5	8.8
(j)	27.5	44

5 miles
is approximately
8 kilometres

(2) Use these conversion facts to find the missing values in the following questions.

(a)	3 cm	=	30	mm	(k)	16 m	=	1 600	cm
(b)	7 cm	=	70	mm	(l)	0.5 m	=	50	cm
(c)	12 cm	=	120	mm	(m)	0.36 m	=	36	cm
(d)	26 cm	=	260	mm	(n)	0.04 m	=	4	cm
(e)	8.3 cm	=	83	mm	(o)	270 cm	=	2.7	m
(f)	7.6 cm	=	76	mm	(p)	48 cm	=	0.48	m
(g)	0.4 cm	=	4	mm	(q)	8000 m	=	8	km
(h)	6 mm	=	60	cm	(r)	560 m	=	0.56	km
(i)	58 mm	=	5.8	cm	(s)	7 km	=	7 000	m
(j)	8 m	=	800	cm	(t)	0.6 km	=	600	m

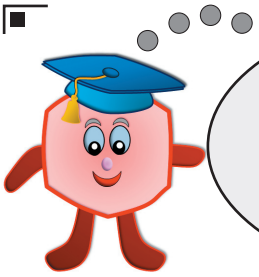
10 mm = 1 cm
100 cm = 1 m
1000 m = 1km

(3) Say which would be the best metric unit to measure each of the items in the table below. (Choose from mm, cm, m, km).

	Item	Metric Unit
(a)	Length of a pencil	cm
(b)	Distance from the earth to the moon	km
(c)	Length of a room	m
(d)	Thickness of a matchstick	mm
(e)	Distance between two towns	km
(f)	Width of a book	cm
(g)	Length of a bus	m
(h)	Distance around a running track	m
(i)	Thickness of an exercise book	mm
(j)	Length of a computer keyboard	cm

(4) This set of zoo direction signposts have accidentally had the distances to various animals given in km, cm, or mm. Convert each distance to metres.

(a)	Lions	2 500 cm	Lions	25	m
(b)	Tigers	12 500 cm	Tigers	125	m
(c)	Leopards	40 000 mm	Leopards	40	m
(d)	Cheetahs	320 000 mm	Cheetahs	320	m
(e)	Jaguars	8 200 cm	Jaguars	82	m
(f)	Elephants	620 000 mm	Elephants	620	m
(g)	Giraffes	0.5 km	Giraffes	500	m
(h)	Penguins	7600 cm	Penguins	76	m
(i)	Sea Lions	0.095 km	Sea Lions	95	m
(j)	Gorillas	440 000 mm	Gorillas	440	m
(k)	Hyenas	0.76 km	Hyenas	760	m
(l)	Wolves	265 000 mm	Wolves	265	m



Maths Homework this week is about:

Using Measurements (Mass and Volume)

Answers

Date:

Teacher:

Year 6

(1) Find the missing values in the following table.

	Grams	Kilograms
(a)	3 000	3
(b)	5 650	5.65
(c)	360	0.36
(d)	27	0.027
(e)	86 000	8
(f)	49 300	49.3
(g)	78 240	78.24
(h)	928 000	928
(i)	3 070	3.07
(j)	60	0.06

1000 g equals 1 kg

(2) Give each of these weights as a decimal value in kilograms.

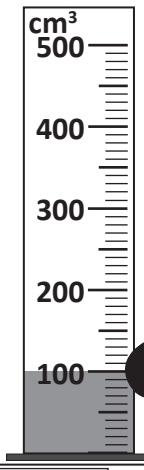
(a)	2	kilograms	460	grams	=	2.46	kg
(b)	7	kilograms	823	grams	=	7.823	kg
(c)	9	kilograms	54	grams	=	9.054	kg
(d)	14	kilograms	620	grams	=	14.62	kg
(e)	23	kilograms	756	grams	=	23.756	kg
(f)	147	kilograms	13	grams	=	147.013	kg

(3) Give each of these weights in kilograms and grams.

(a)	3.5	kg	=	3	kilograms	500	grams
(b)	8.02	kg	=	8	kilograms	20	grams
(c)	6.054	kg	=	6	kilograms	54	grams
(d)	39.08	kg	=	39	kilograms	80	grams
(e)	76.684	kg	=	76	kilograms	684	grams
(f)	235.14	kg	=	235	kilograms	140	grams

(4) Give the reading, in cm³, on each of these measuring cylinders, and then convert each value into litres.

(a)

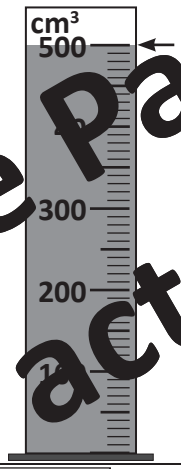


100	cm³
0.1	litres

(b)

450	cm³
0.45	litres

(c)



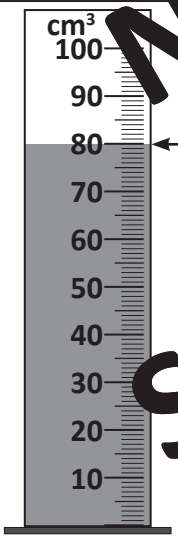
500	cm³
0.5	litres

(d)

350	cm³
0.35	litres

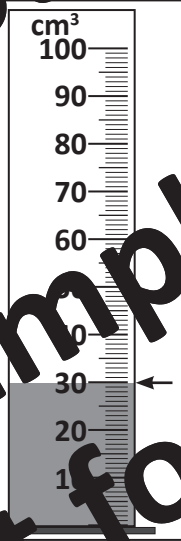
1 000 cm³ equals 1 litre

(e)



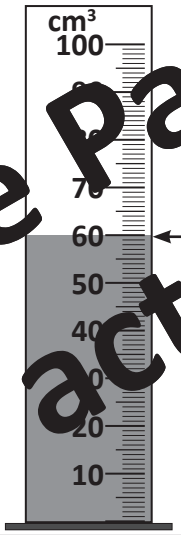
80	cm³
0.08	litres

(f)



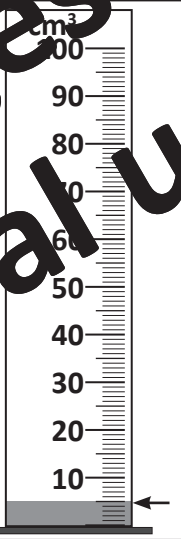
30	cm³
0.03	litres

(g)



60	cm³
0.06	litres

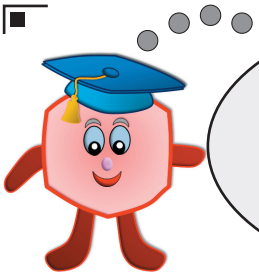
(h)



5	cm³
0.005	litres

(5) Find the missing values in this table.

(a)	6 000	cm³	6	litres
(b)	11 000	cm³	11	litres
(c)	3 700	cm³	3.7	litres
(d)	9 400	cm³	9.4	litres
(e)	5 260	cm³	5.26	litres
(f)	8 103	cm³	8.103	litres
(g)	12 060	cm³	12.06	litres
(h)	125 000	cm³	125	litres
(i)	800	cm³	0.8	litres
(j)	43	cm³	0.043	litres



Maths Homework this week is about:

Area and Perimeter of Parallelograms and Triangles

Answers

Date:

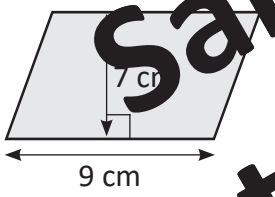
Teacher:

Year 6

(1) Find the area of each of these parallelograms.

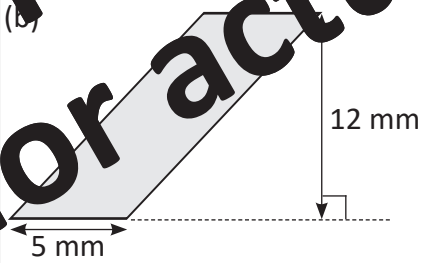
The diagrams on this sheet are not drawn to scale.

(a)



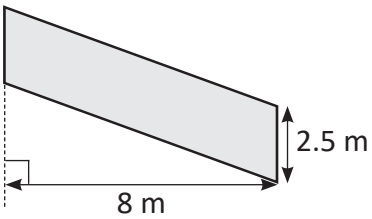
Area = 9 × 7
63 cm²

(b)



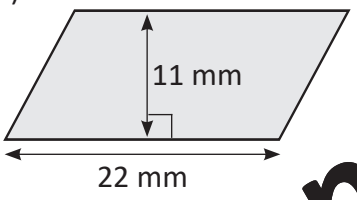
Area = 5 × 12
60 mm²

(c)



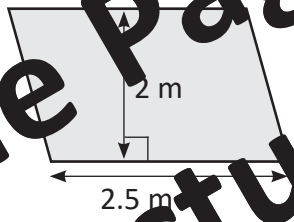
Area = 8 × 2.5
20 m²

(d)



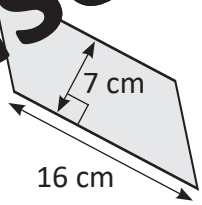
Area = 22 × 11
242 mm²

(e)



Area = 2.5 × 2
5 m²

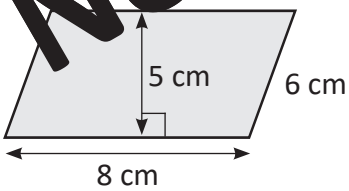
(f)



Area = 16 × 7
112 cm²

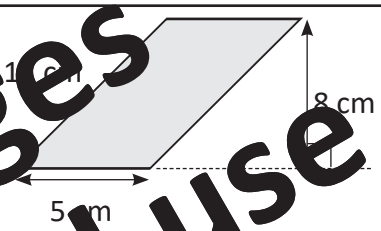
(2) These parallelograms all have an area of 40cm³, but they have different perimeters.
Find the perimeter of each one.

(a)



Perimeter = 8 + 6 + 8 + 6
28 cm

(b)

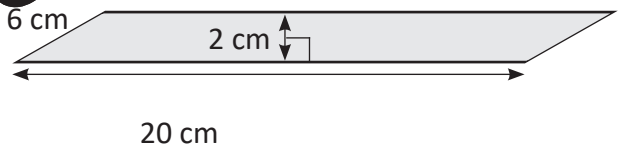


Perimeter = 5 + 12 + 5 + 12
34 cm

(c)

Perimeter = 5 + 10 + 5 + 10
30 cm

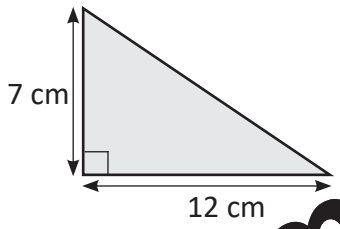
(d)



Perimeter = 20 + 6 + 20 + 6
52 cm

(3) Find the area of each of these triangles.

(a)

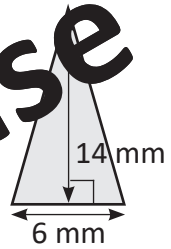


Area = 7 × 12 ÷ 2
42 cm²

(b)

Area = 3 × 5 ÷ 2
7.5 m²

(c)

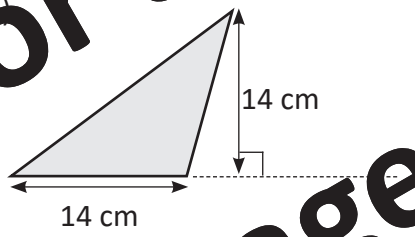


Area = 14 × 6 ÷ 2
42 mm²

(d)

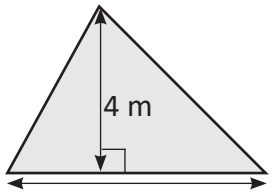
Area = 10 × 26 ÷ 2
130 mm²

(e)



Area = 14 × 14 ÷ 2
98 cm²

(f)



Area = 6.4 × 4 ÷ 2
12.8 m²

(4) This shape is made up of right angled triangles.
By finding the area of each triangle, find the total area of the complete shape.

Triangle A
Area = 30 × 18 ÷ 2
270 cm²

Triangle B
Area = 30 × 7 ÷ 2
105 cm²

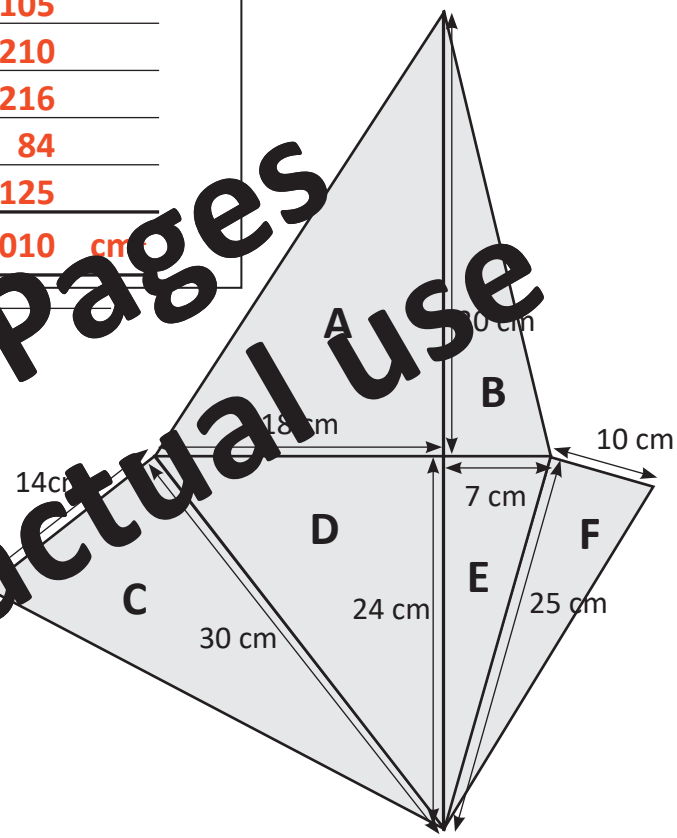
Triangle C
Area = 30 × 14 ÷ 2
210 cm²

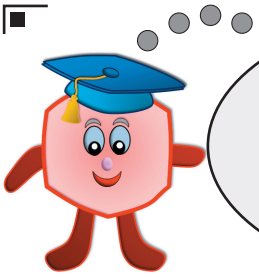
Triangle D
Area = 18 × 24 ÷ 2
216 cm²

Triangle E
Area = 7 × 24 ÷ 2
84 cm²

Triangle F
Area = 10 × 25 ÷ 2
125 cm²

Total area
270
105
210
216
+ 84
1010 cm²





Maths Homework this week is about:

Volume of Cubes and Cuboids

Answers

Date:

Teacher:

Year 6

(1) Find the volume of each of these cubes.

The diagrams on this sheet are not drawn to scale.

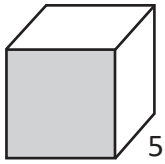
(a)

Volume = 2 × 2 × 2
8 cm³

(b)

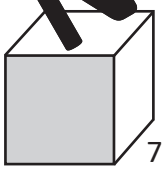
Volume = 3 × 3 × 3
27 cm³

(c)



Volume = 5 × 5 × 5
125 cm³

(d)



Volume = 7 × 7 × 7
343 cm³

(e)

Volume = 9 × 9 × 9
729 cm³

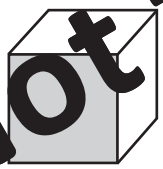
(f)

Volume = 10 × 10 × 10
1 000 cm³

(2) These cubes each have side lengths which are whole numbers. You are given the volume for each one. Find the side length of each.

(a)

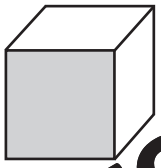
Volume
64 cm³



Each side length
4 cm

(b)

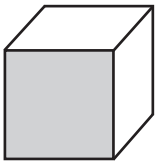
Volume
1 cm³



Each side length
1 cm

(c)

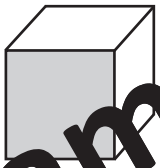
Volume
216 cm³



Each side length
6 cm

(d)

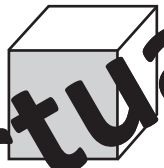
Volume
8 000 cm³



Each side length
20 cm

(e)

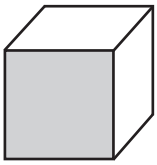
Volume
512 cm³



Each side length
8 cm

(f)

Volume
27 000 cm³



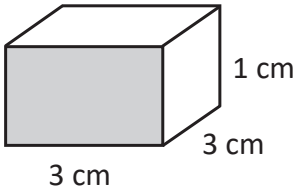
Each side length
30 cm

(3) Find the volume of a cube with sides of length 1.5 cm

Volume = 1.5 × 1.5 × 1.5
3.375 cm³

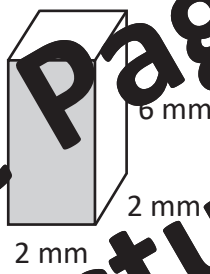
(4) Work out the volume of each of these cuboids.

(a)



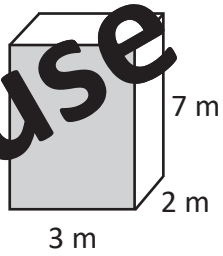
Volume = 3 × 3 × 1
9 cm³

(b)



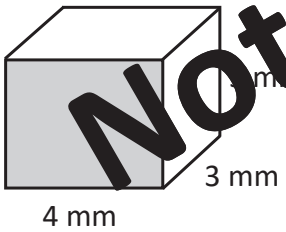
Volume = 2 × 2 × 6
24 mm³

(c)



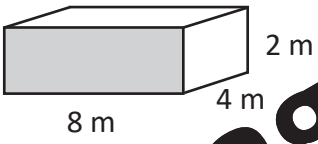
Volume = 3 × 2 × 7
42 m³

(d)



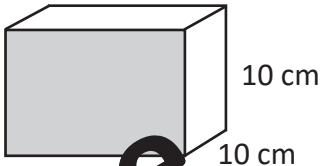
Volume = 4 × 3 × 5
60 mm³

(e)



Volume = 8 × 4 × 2
64 m³

(f)



Volume = 20 × 10 × 10
2 000 cm³

(5) Find the length of the missing side in each of these cuboids.

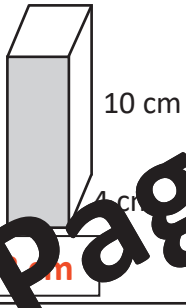
(a)

Volume = 180 cm³

5 cm

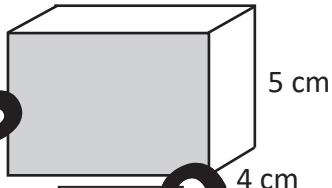
(b)

Volume = 80 cm³



(c)

Volume = 140 cm³



7 cm

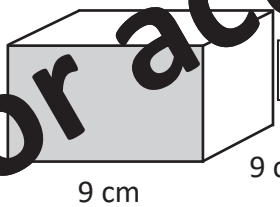
(d)

Volume = 1440 cm³

12 cm

(e)

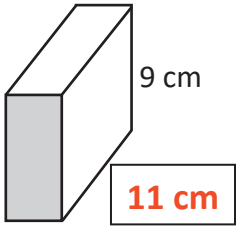
Volume = 486 cm³



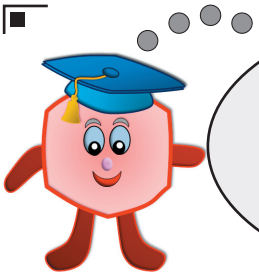
6 cm

(f)

Volume = 297 cm³



11 cm



Maths Homework this week is about:

Drawing 2D Shapes

Answers

Date:

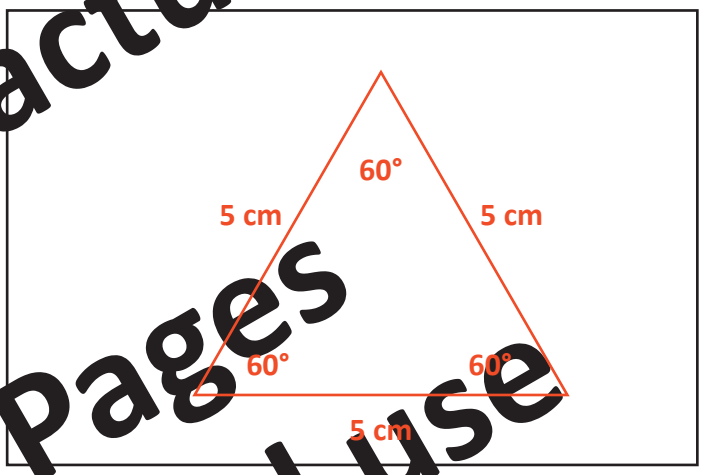
Teacher:

Year 6

(1) (a) Draw an equilateral triangle with sides of length 5 cm.

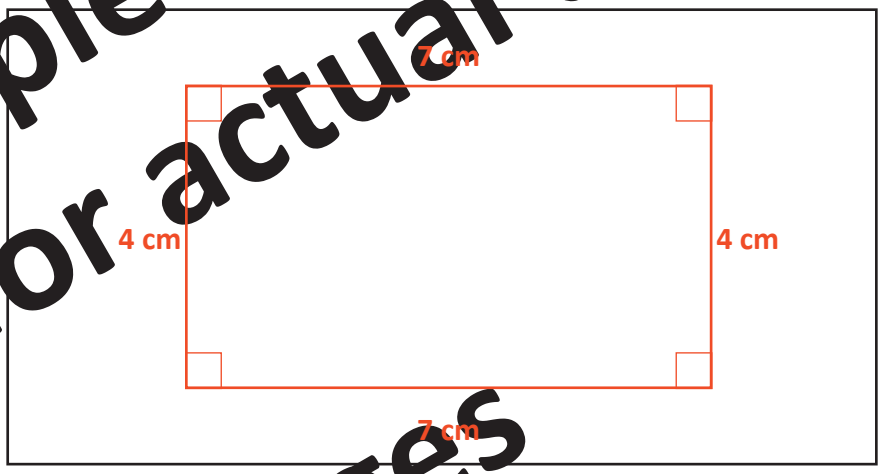
You will need a pencil, ruler and protractor.

(b) Label the angles and side lengths on your drawing.



(2) (a) Draw a rectangle which has a base of 7 cm and a height of 4 cm.

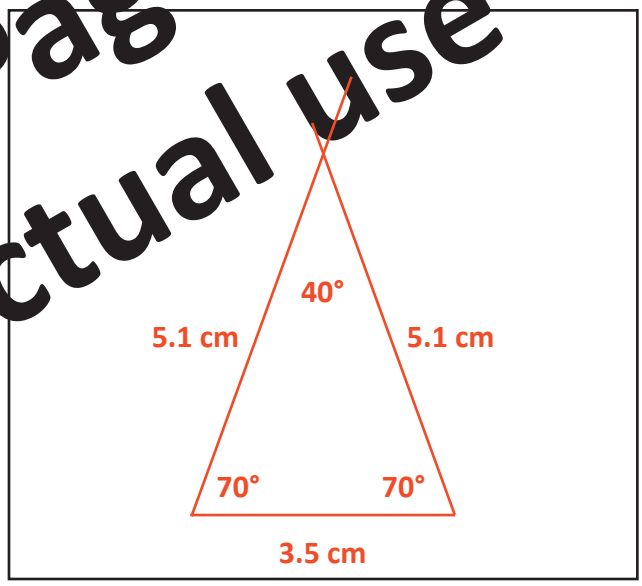
(b) Label the lengths of sides on your drawing.



(3) (a) Draw an isosceles triangle with a base of length 3.5 cm and two equal angles at the base of 70°.

(b) Label the base length and all of the angles.

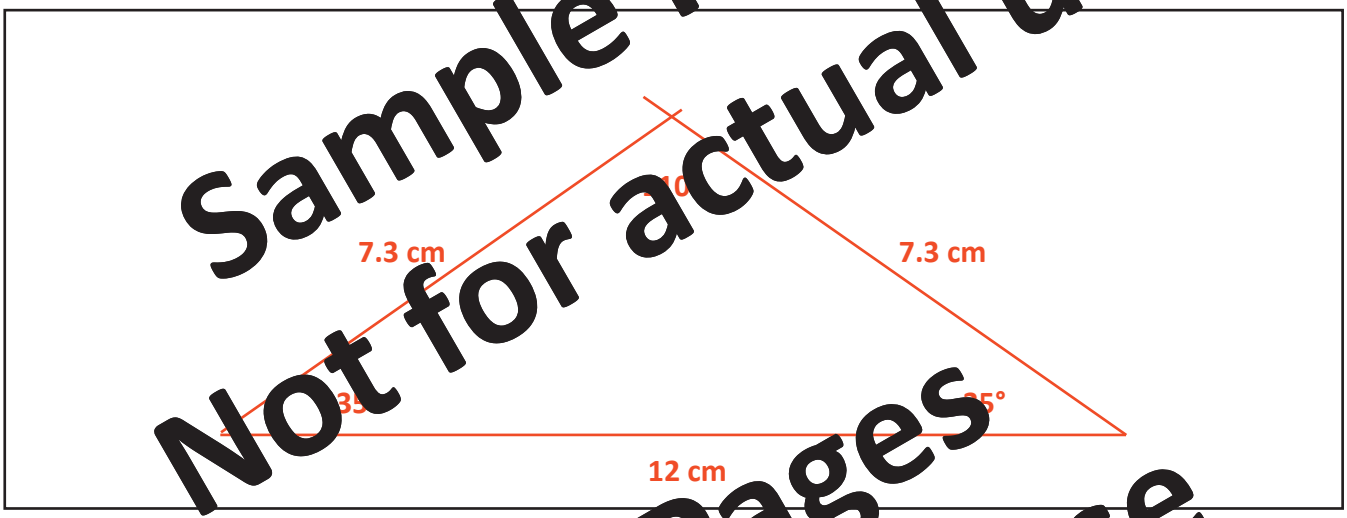
(c) Measure and label the two equal sides.



(4) (a) Draw an isosceles triangle with a base of length 12 cm and two equal angles at the base of 35°.

(b) Label the base length and all of the angles.

(c) Measure and label the two equal sides.

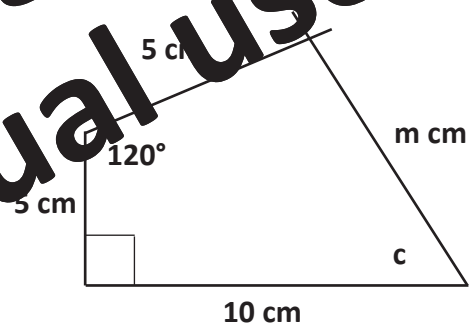


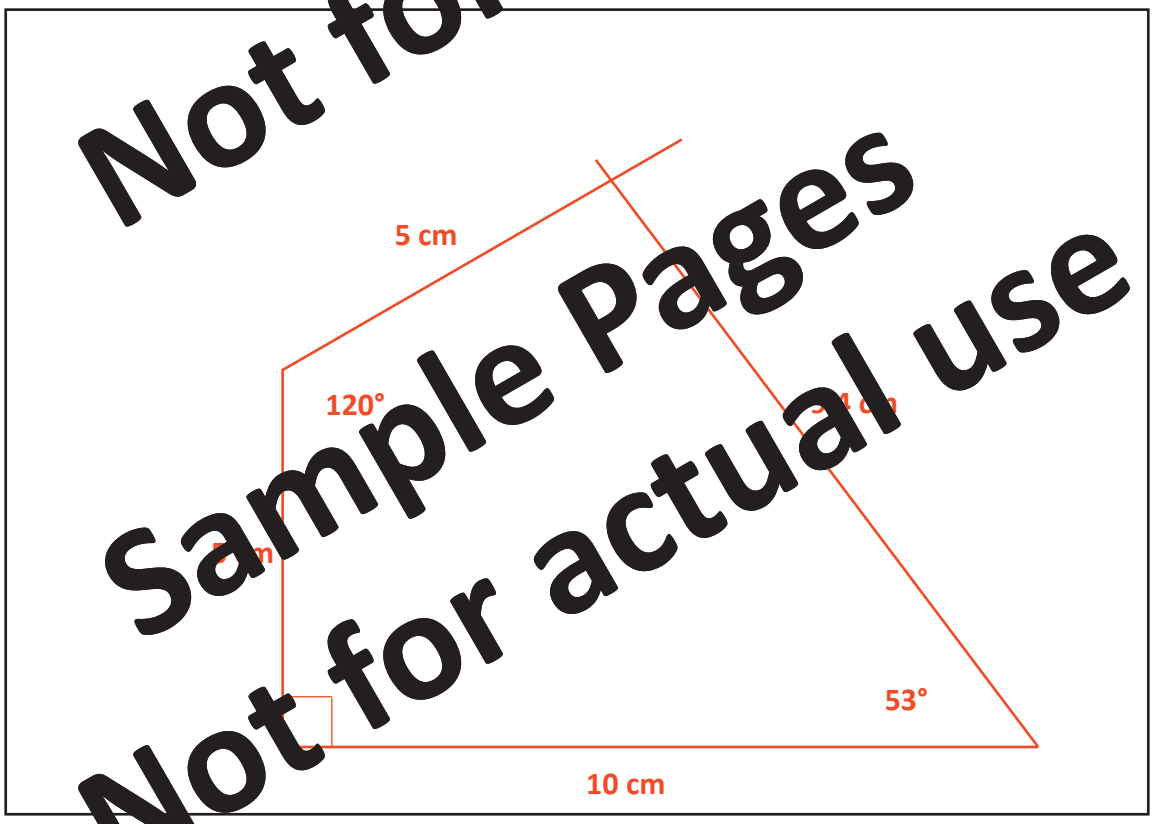
(5) (a) Use your ruler and protractor to make an accurate drawing of the shape shown in this sketch.

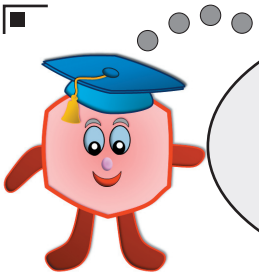
(b) Label the given angles and side lengths on your diagram.

(c) Measure the length of side m.

(d) Measure the size of angle c.







Maths Homework this week is about:

3D Shapes and Nets

Answers

Date:

Teacher:

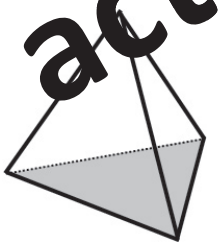
Year 6

(1) Give the name of each of the following 3D shapes.

(a)

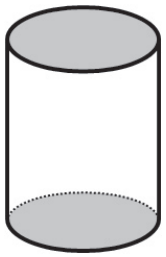
Triangular Prism

(b)



Tetrahedron

(c)



Cylinder

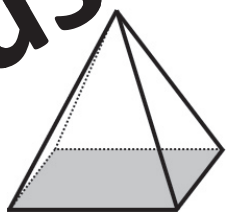
(d)

Cone

(e)

Hexagonal Prism

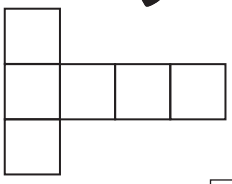
(f)



Square Based Pyramid

(2) Put a tick or cross next to each of these diagrams to indicate whether or not it is the net of a cube.

(a)



✓

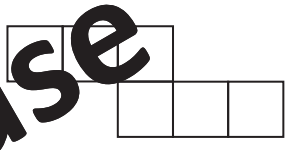
(b)

✗

(c)

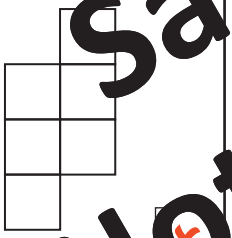
✓

(d)



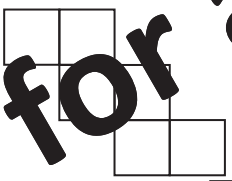
✓

(e)



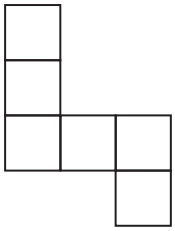
✗

(f)



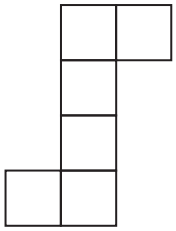
✓

(g)



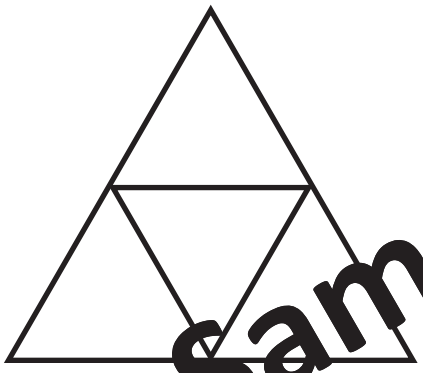
✗

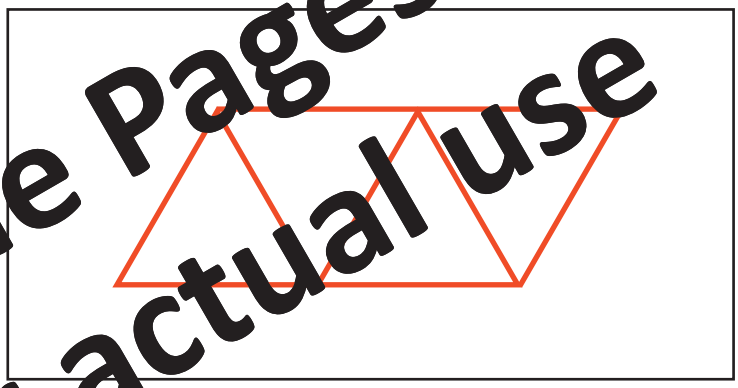
(h)



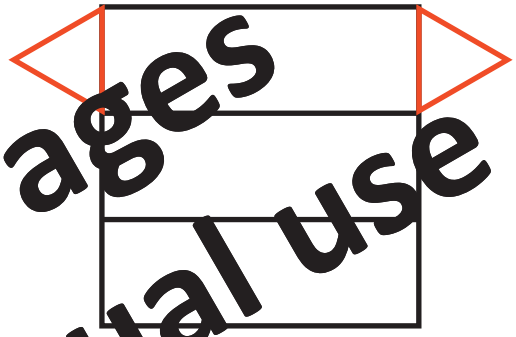
✓

(3) Here is one possible net for a tetrahedron. Sketch the other possible net for a tetrahedron.





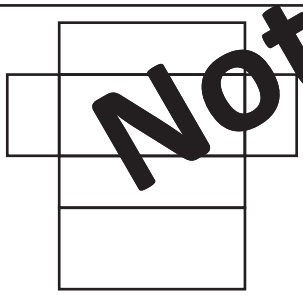
(4) Complete this net for a triangular prism.
(There are a few different ways you could do this).



There can be one triangle on each side.
The triangle can be on any of the rectangles.

(5) Name the solid which can be made from each of the following nets.

(a)



Cuboid

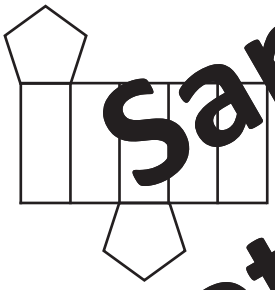
(b)

Square Pyramid

(c)

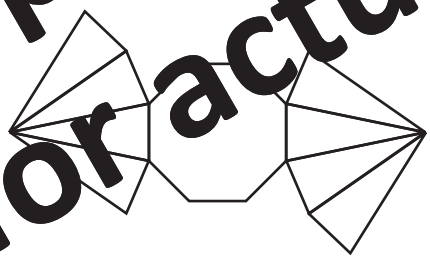
Hexagonal Pyramid

(d)



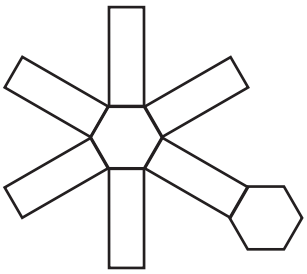
Pentagonal Prism

(e)

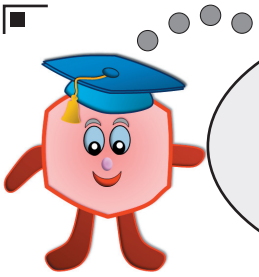


Octagonal Pyramid

(f)



Hexagonal Prism



Maths Homework this week is about:

Angles in Triangles, Quadrilaterals and Polygons

Answers

Date:

Teacher:

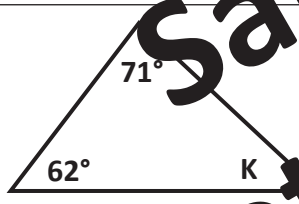
Year 6

Angles in a Triangle add up to 180°

The diagrams on this sheet are not drawn to scale.

(1) Find the missing angle in each of the following triangles.

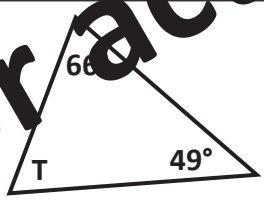
(a)



62 + 71 = 133

K = 180 - 133 = **47°**

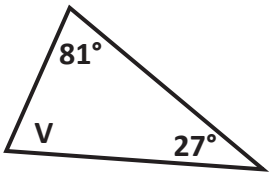
(b)



66 + 49 = 115

T = 180 - 115 = **65°**

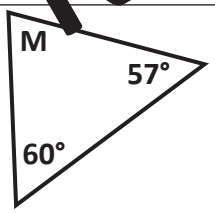
(c)



81 + 27 = 108

V = 180 - 108 = **72°**

(d)



60 + 57 = 117

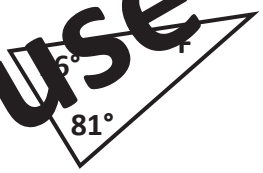
M = 180 - 117 = **63°**

(e)

24 + 125 = 149

G = 180 - 149 = **31°**

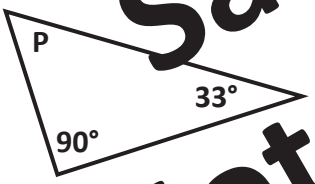
(f)



81 + 76 = 157

F = 180 - 157 = **23°**

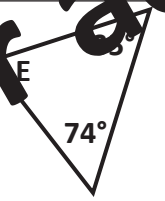
(g)



90 + 33 = 123

P = 180 - 123 = **57°**

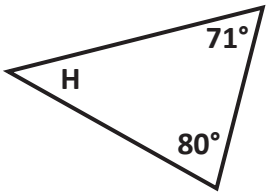
(h)



74 + 35 = 109

E = 180 - 109 = **71°**

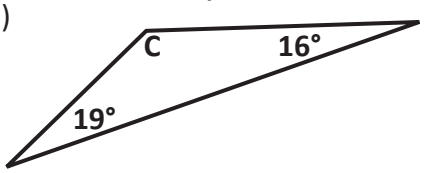
(i)



80 + 71 = 151

H = 180 - 151 = **29°**

(j)



19 + 16 = 35

C = 180 - 35 = **145°**

(k)

90 + 66 = 156

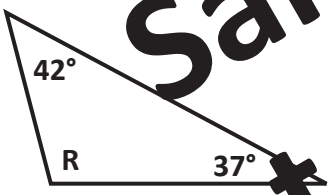
Y = 180 - 156 = **24°**

(l)

59 + 23 = 82

N = 180 - 82 = **98°**

(m)



42 + 37 = 79

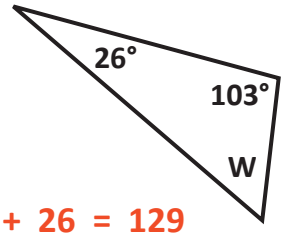
R = 180 - 79 = **101°**

(n)

57 + 57 = 114

D = 180 - 114 = **66°**

(o)



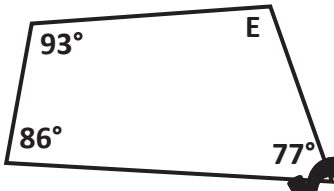
103 + 26 = 129

W = 180 - 129 = **51°**

Angles in a Quadrilateral add up to 360°

(2) Find the missing angle in each of the following quadrilaterals.

(a)



86 + 93 + 77 = 256

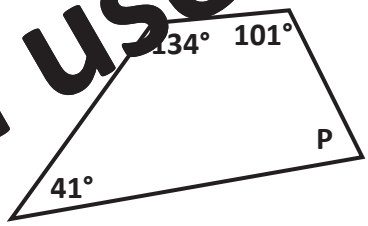
E = 360 - 256 = **104°**

(b)

90 + 90 + 71 = 251

N = 360 - 251 = **109°**

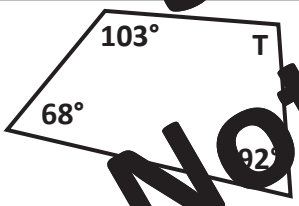
(c)



101 + 134 + 41 = 276

P = 360 - 276 = **84°**

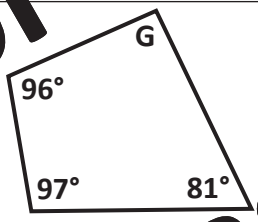
(d)



103 + 68 + 92 = 263

T = 360 - 263 = **97°**

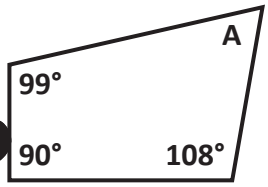
(e)



96 + 97 + 81 = 274

G = 360 - 274 = **86°**

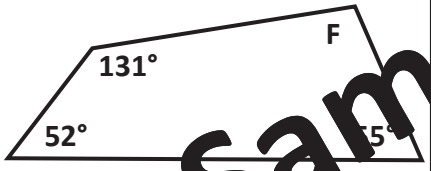
(f)



99 + 90 + 108 = 297

A = 360 - 297 = **63°**

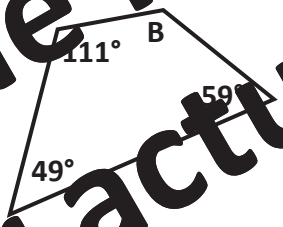
(g)



131 + 55 + 52 = 238

F = 360 - 238 = **122°**

(h)



49 + 111 + 59 = 219

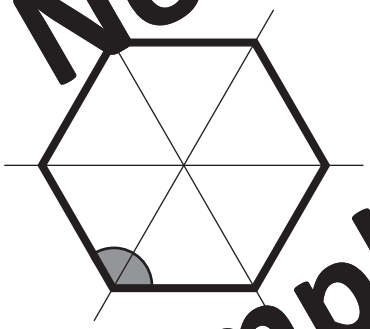
B = 360 - 219 = **141°**

(i)

96 + 114 + 128 = 338

D = 360 - 338 = **22°**

(3) This regular hexagon can be split into six equilateral triangles.
What is the size of each angle inside the regular hexagon?



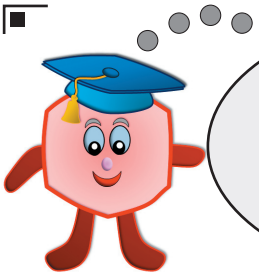
60 + 60 = 120

120°

(4) The exterior angle of a regular pentagon is 72°.
What is the size of each angle inside the regular pentagon?

180 - 72 = 108

108°



Maths Homework this week is about:

Circles

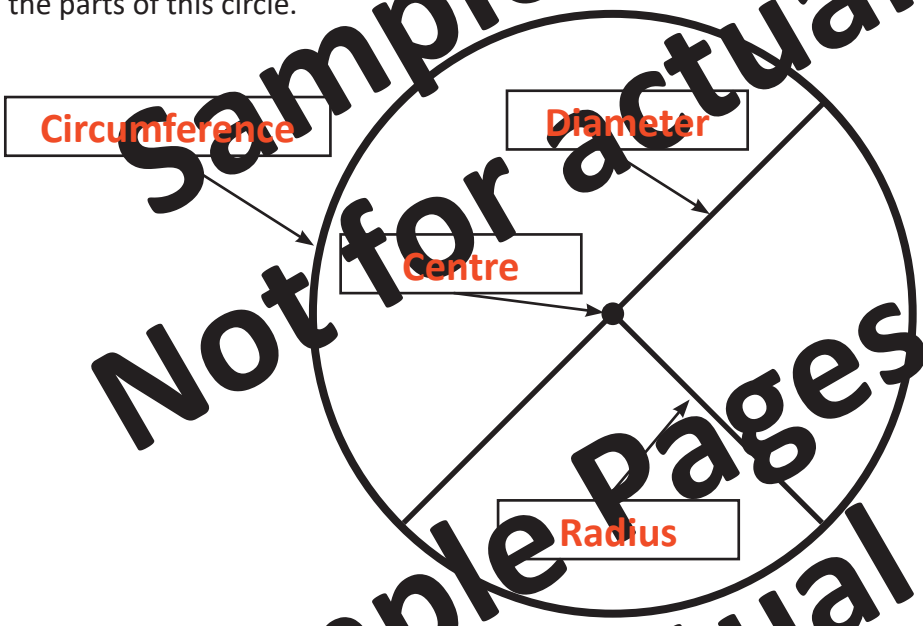
Answers

Date:

Teacher:

Year 6

(1) Label the parts of this circle.



(2) Find the diameter for each circle with each radius in the following table.

	Radius	Diameter
(a)	3 cm	6 cm
(b)	12 mm	24 mm
(c)	20 mm	40 mm
(d)	17 cm	34 cm
(e)	4.2 cm	8.4 cm
(f)	7.7 m	15.4 m
(g)	29 mm	58 mm
(h)	2.25 cm	4.5 cm
(i)	0.9 m	1.8 m
(j)	78.7 cm	157.4 cm
(k)	0.83 m	1.66 m
(l)	139 cm	278 cm

(3) Find the radius for circles with each diameter in the following table

	Diameter	Radius
(a)	4 m	2 m
(b)	94 m	47 m
(c)	132 m	66 cm
(d)	174 mm	87 mm
(e)	218 cm	109 cm
(f)	848 cm	424 cm
(g)	19.6 m	9.8 m
(h)	39.4 cm	19.7 cm
(i)	752 mm	376 mm
(j)	15.4 cm	7.7 cm
(k)	0.94 m	0.47 m
(l)	19.2 cm	9.6 cm

(4) Measure the diameter and radius of each of the following circles. GIve your answers in millimetres.

(a)

Diameter: 22 mm

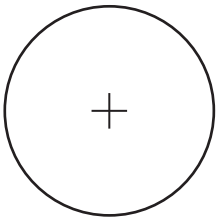
Radius: 11 mm

(b)

Diameter: 12 mm

Radius: 6 mm

(c)



Diameter: 28 mm

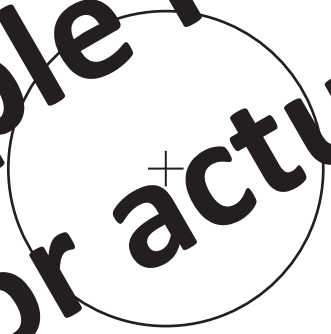
Radius: 14 mm

(d)

Diameter: 38 mm

Radius: 19 mm

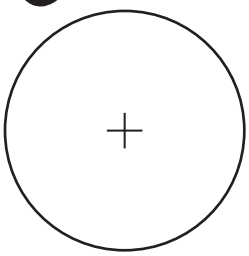
(e)



Diameter: 42 mm

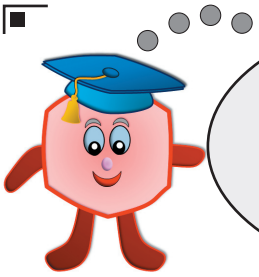
Radius: 21 mm

(f)



Diameter: 32 mm

Radius: 16 mm



Maths Homework this week is about:

Angles and Lines

Answers

Date:

Teacher:

Year 6

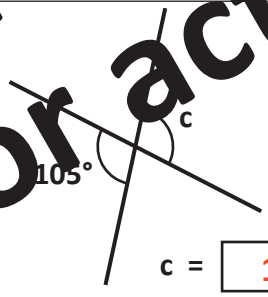
(a)

For all the questions on this sheet, find the angles labelled with the letters.

(1)

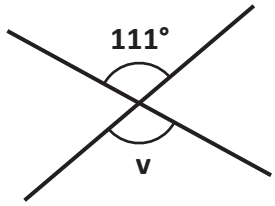
g = 23°

(2)



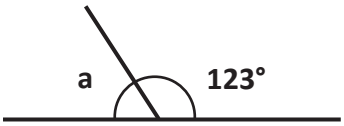
c = 105°

(3)



v = 111°

(4)



a = 57°

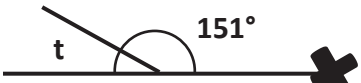
(5)

n = 106°

(6)

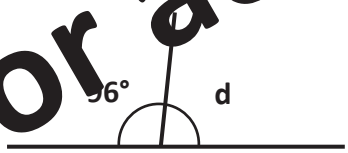
r = 38°

(7)



t = 29°

(8)

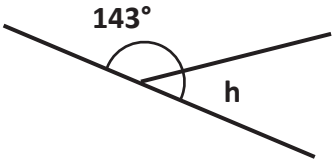


d = 84°

(9)

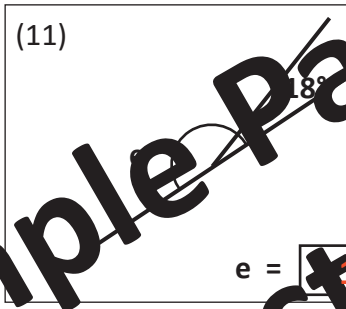
w = 141°

(10)



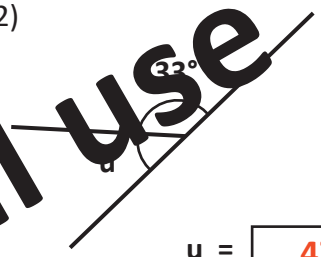
h = 37°

(11)



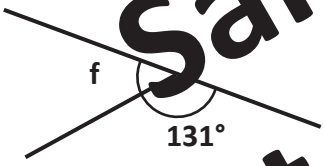
e = 162°

(12)



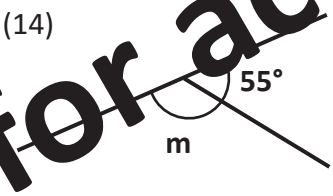
u = 47°

(13)



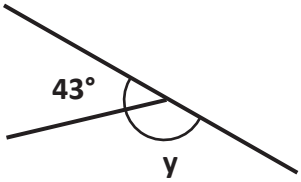
f = 49°

(14)



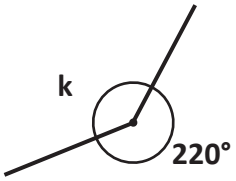
m = 125°

(15)



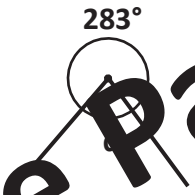
y = 137°

(16)



k = 140°

(17)



d = 77°

(18)

p = 132°

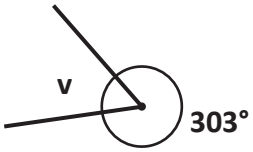
(19)

c = 226°

(20)

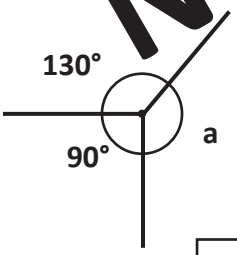
r = 128°

(21)



v = 57°

(22)

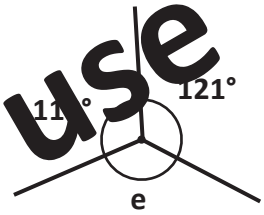


a = 140°

(23)

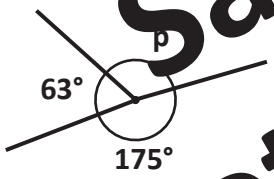
y = 165°

(24)



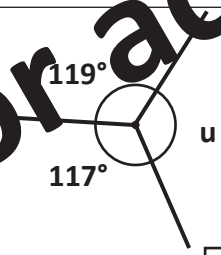
e = 129°

(25)



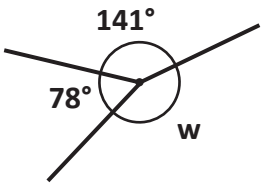
p = 122°

(26)



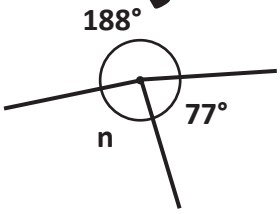
u = 124°

(27)



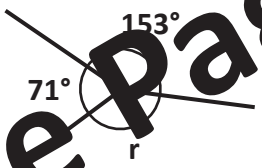
w = 141°

(28)



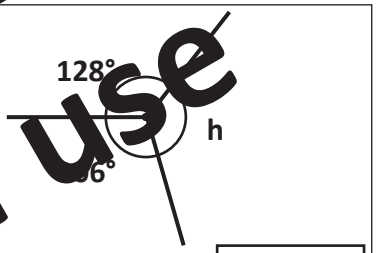
n = 95°

(29)



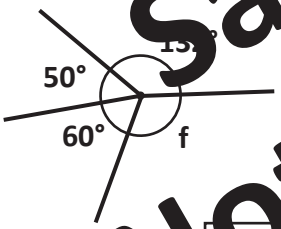
r = 136°

(30)



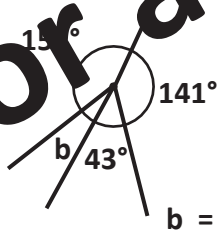
h = 126°

(31)



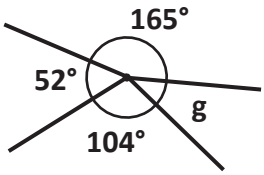
f = 118°

(32)

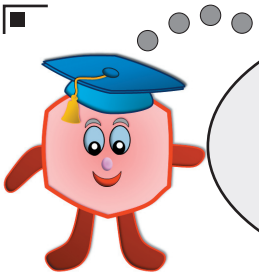


b = 23°

(33)



g = 39°



Maths Homework this week is about:

Co-ordinates

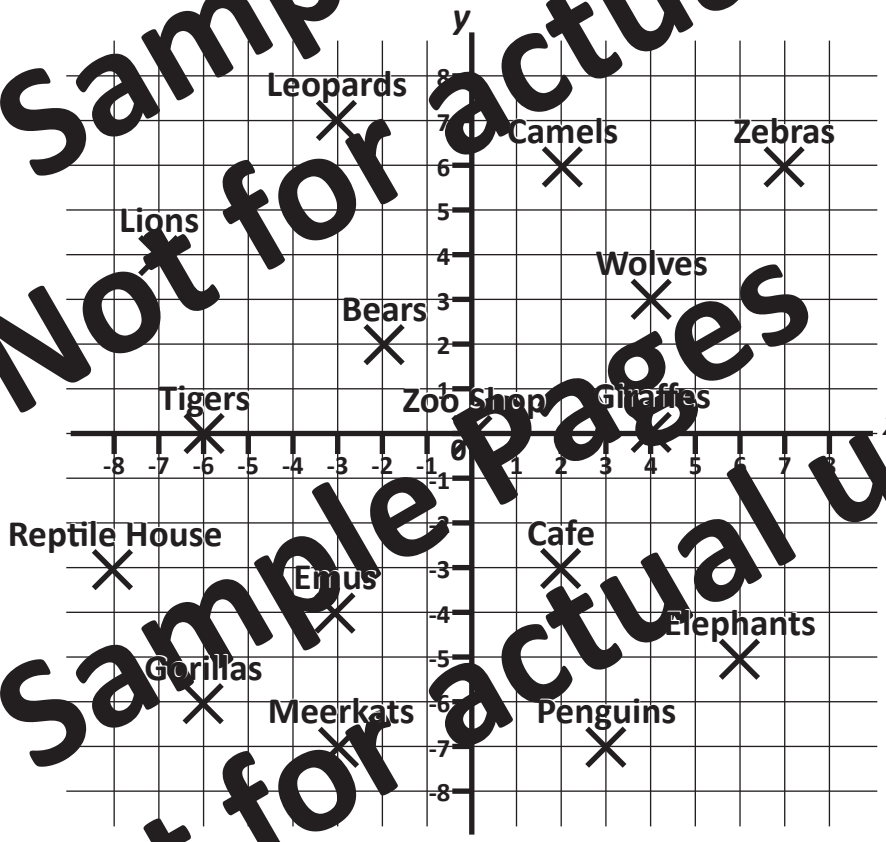
Answers

Date:

Teacher:

Year 6

(1) Give the co-ordinates of each place on the zoo plan.

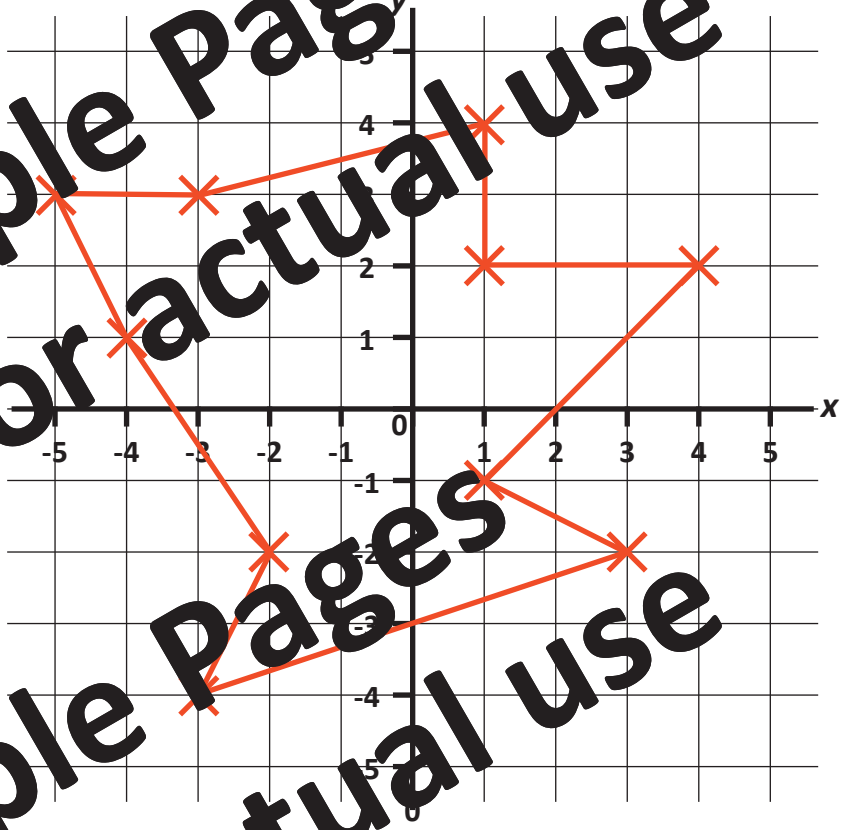


	Location	Co-ordinates
(a)	Zoo Shop	(0, 0)
(b)	Elephants	(6, -5)
(c)	Lions	(-7, 4)
(d)	Cafe	(2, -3)
(e)	Zebras	(7, 6)
(f)	Gorillas	(-6, -6)
(g)	Camels	(2, 6)
(h)	Penguins	(3, -7)

	Location	Co-ordinates
(i)	Tigers	(-6, 0)
(j)	Leopards	(-3, 7)
(k)	Wolves	(4, 3)
(l)	Emus	(-3, -4)
(m)	Giraffes	(4, 0)
(n)	Bears	(-2, 2)
(o)	Reptile House	(-8, -3)
(p)	Meerkats	(-3, -7)

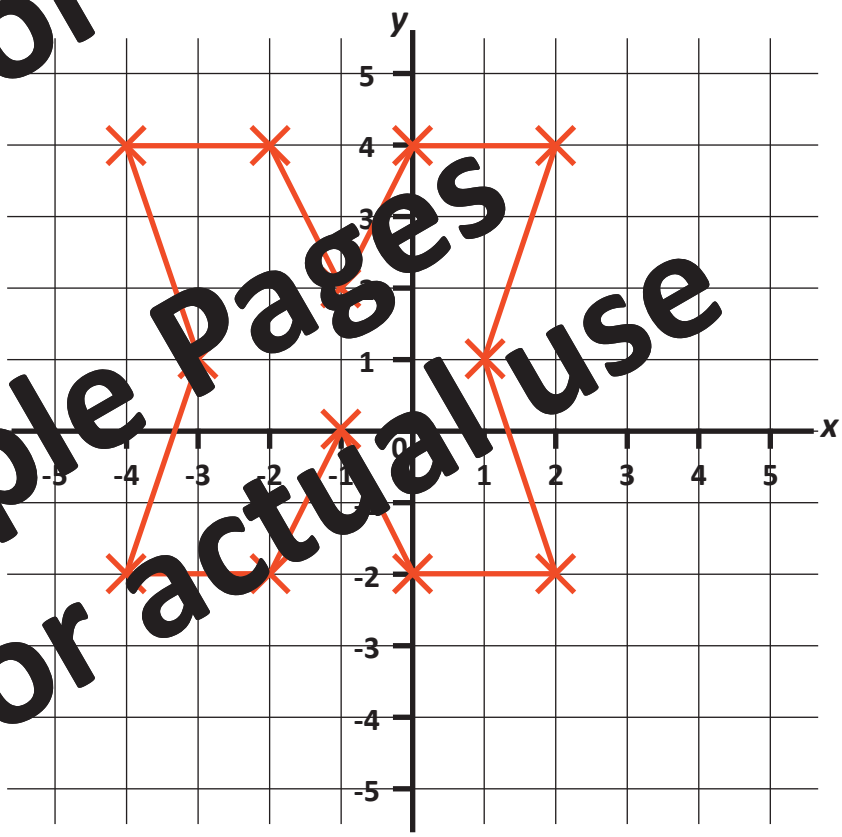
(2) Plot each of the following co-ordinates, in order, on the set of axes below and join them in the order you plotted them to make a shape.

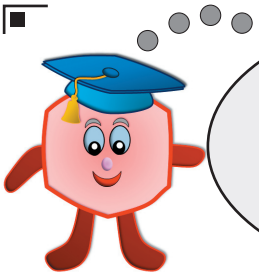
(-3, 3)
(1, 4)
(1, 2)
(4, 2)
(1, -1)
(3, -1)
(-3, -4)
(-2, -2)
(-4, 1)
(-5, 3)
then back to
(-3, 3)



(3) Plot each of the following co-ordinates, in order, on the set of axes below, and join them in the order you plotted them to make a shape.

(-4, 4)
(-2, 4)
(-1, 2)
(0, 4)
(2, 4)
(1, 1)
(2, -2)
(0, -2)
(-1, 0)
(-2, -2)
(-4, -2)
(3, 1)
then back to
(-4, 4)





Maths Homework this week is about:

Translating and Reflecting Shapes

Answers

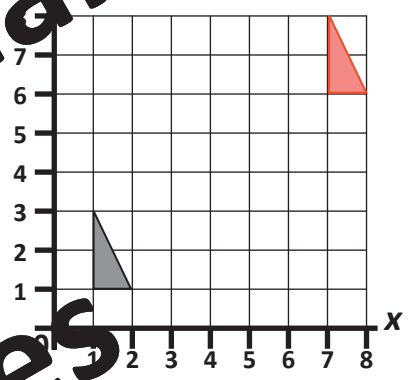
Date:

Teacher:

Year 6

(1) (a) Translate this shape

6 RIGHT
5 UP

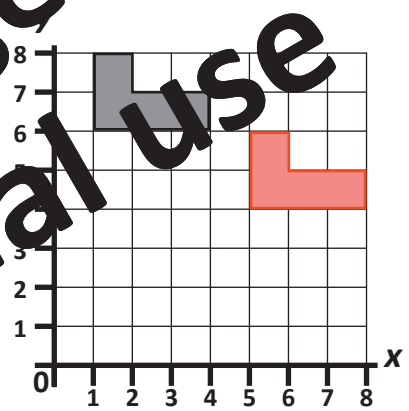


(b) Give the translation which would get from your answer back to the starting shape.

6 LEFT
5 DOWN

(2) (a) Translate this shape

4 RIGHT
2 DOWN

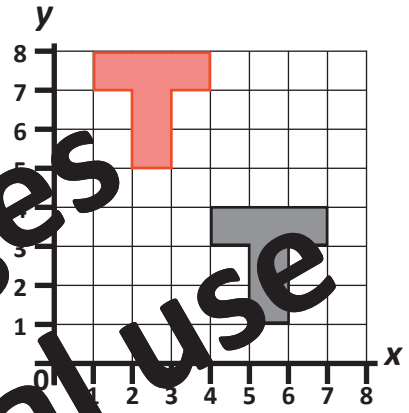


(b) Give the translation which would get from your answer back to the starting shape.

4 LEFT
2 UP

(3) (a) Translate this shape

3 LEFT
4 UP

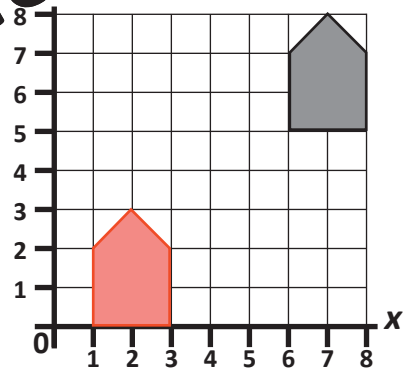


(b) Give the translation which would get from your answer back to the starting shape.

3 RIGHT
4 DOWN

(4) (a) Translate this shape

5 LEFT
3 DOWN

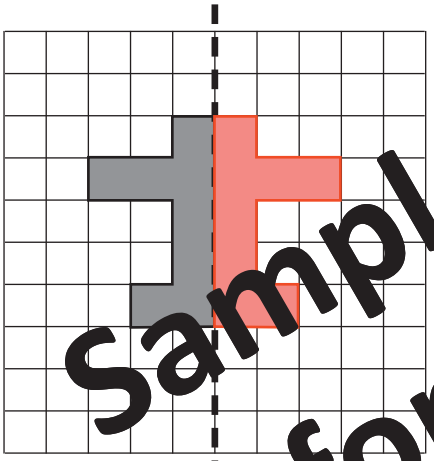


(b) Give the translation which would get from your answer back to the starting shape.

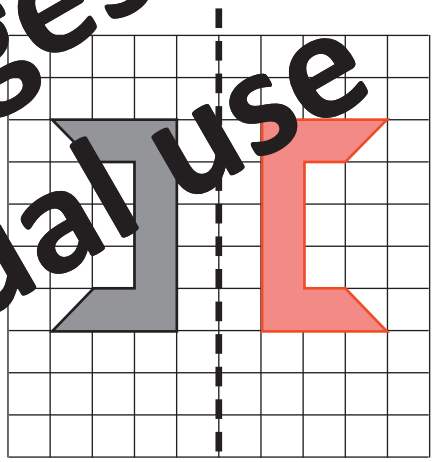
5 RIGHT
3 UP

(5) Reflect each shape in the dotted mirror line.

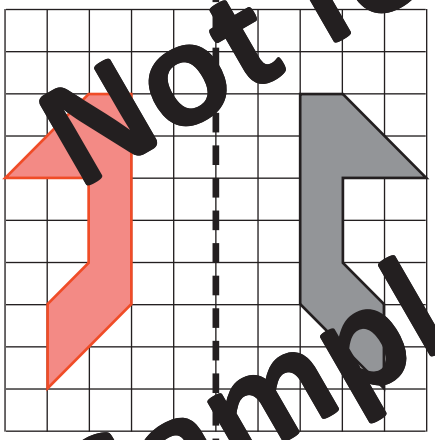
(a)



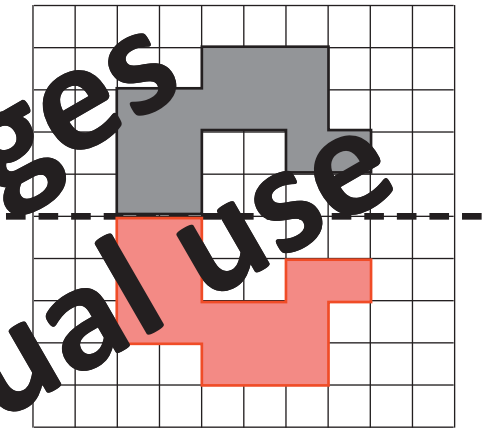
(b)



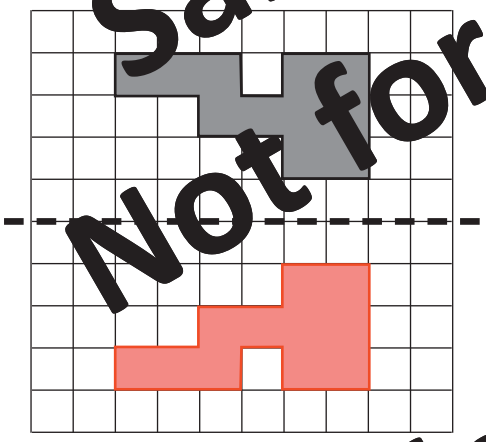
(c)



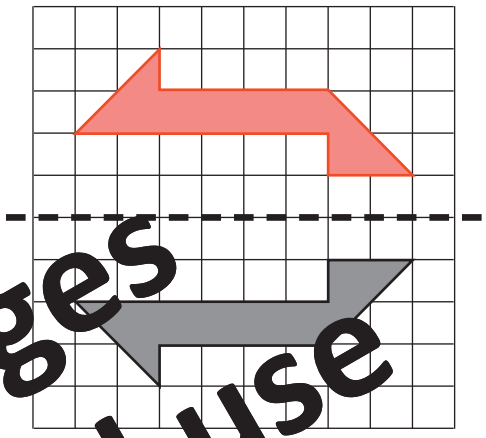
(d)



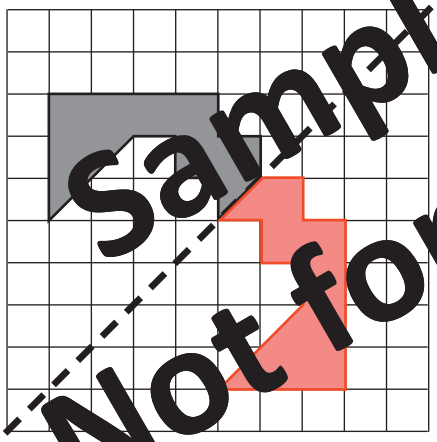
(e)



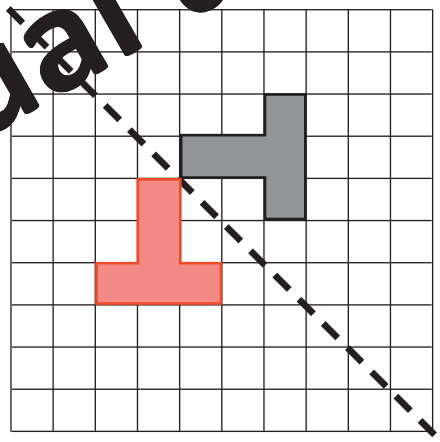
(f)

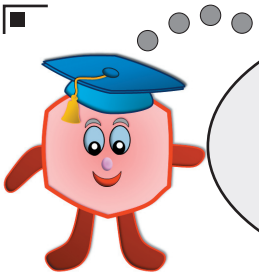


(g)



(h)





Maths Homework this week is about:

Pie Charts and Line Graphs

Answers

Date:

Teacher:

Year 6

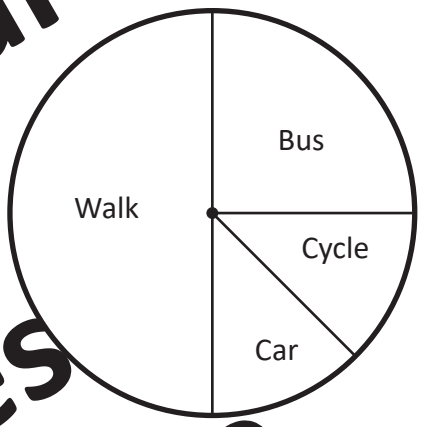
(1) This pie chart shows the method used by 40 pupils to get to school.

(a) How many pupils walked? **20**

(b) How many pupils came by bus? **10**

(c) How many pupils cycled? **5**

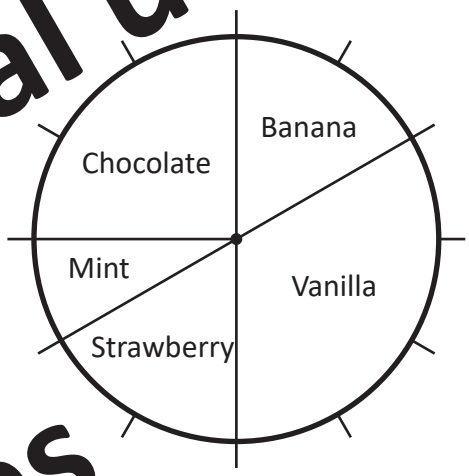
(d) How many pupils came by car? **5**



(2) This pie chart shows the favourite ice cream flavour of 60 pupils.

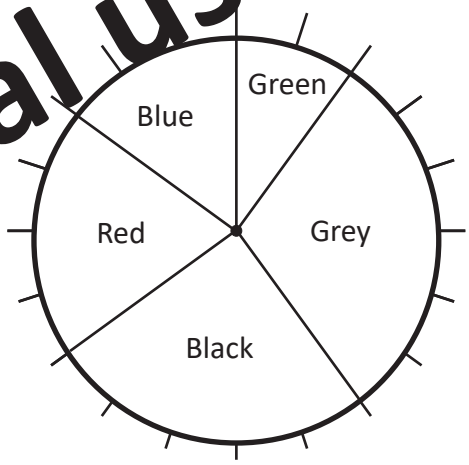
Use the information in the pie chart to fill in the table to show the number of people who chose each flavour.

Flavour	Number of people
Chocolate	15
Mint	5
Strawberry	10
Vanilla	20
Banana	10



(3) Here is a pie chart to show the number of different colours of cars in a car park.
There were 100 cars altogether.
Use the information in the pie chart to fill in this table to show the number of cars of each colour.

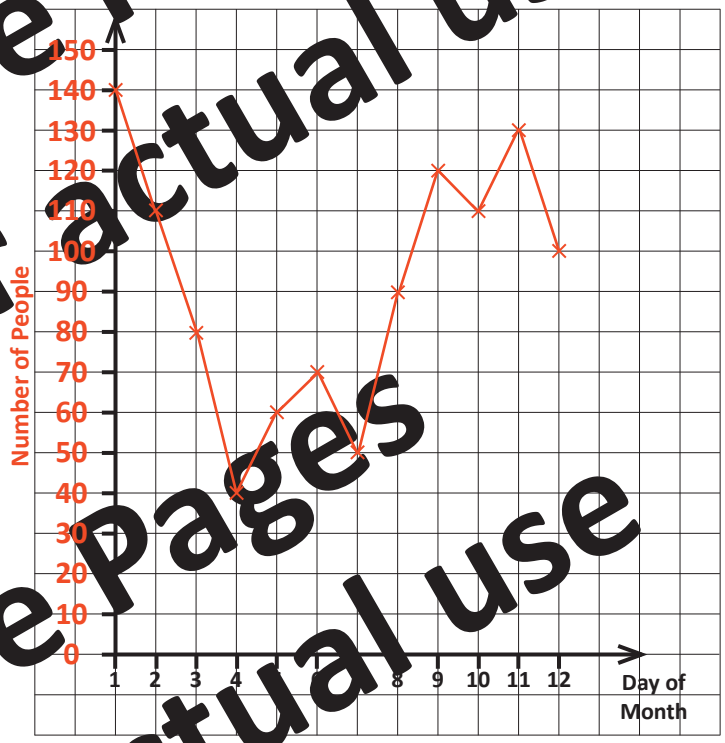
Colour	Number of cars
Green	10
Grey	30
Black	25
Red	20
Blue	15



(4) The table below shows the number of people who visited a museum on the first 12 days of one month.

Draw a line graph to show this data.

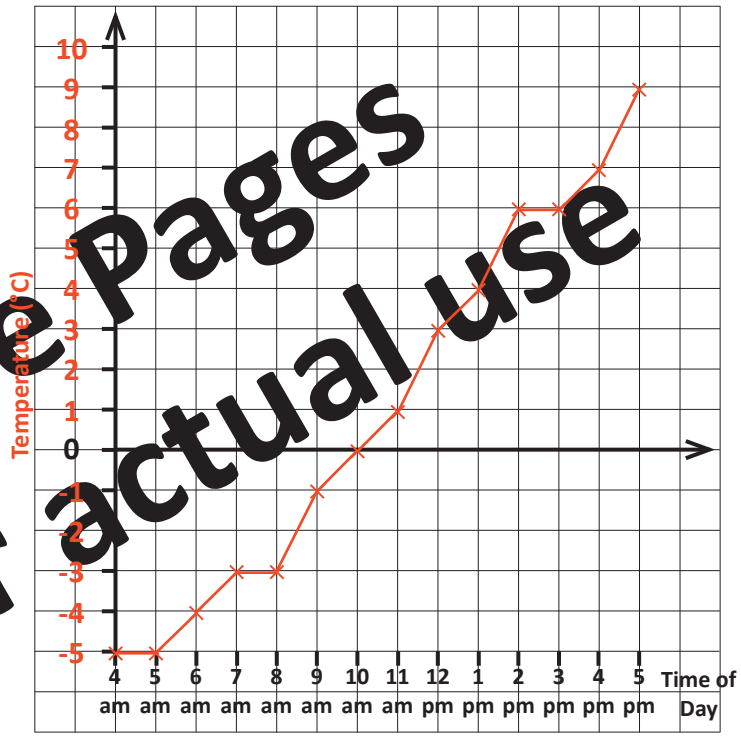
Day of Month	Number of People
1	140
2	110
3	30
4	40
5	60
6	70
7	50
8	90
9	120
10	110
11	130
12	100

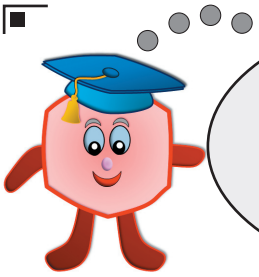


(5) The table below shows the temperature at various times during one winter day.

Draw a line graph to show this data.

Time of Day	Temperature (°C)
4 am	-5
5 am	-5
6 am	-4
7 am	-3
8 am	-3
9 am	-1
10 am	0
11 am	1
12 pm	3
1 pm	4
2 pm	6
3 pm	6
4 pm	7
5 pm	9





Maths Homework this week is about:

Mean Averages

Answers

Date:

Teacher:

Year 6

(1) The time, in minutes, a pupil spent on homework during five nights were:

20 minutes, **22** minutes, **18** minutes, **36** minutes, **24** minutes

Find the mean number of minutes spent on homework for the five nights.

20 + 22 + 18 + 36 + 24 = 120

120 ÷ 5 = 24

Mean time: **24 minutes**

(2) A runner ran over 200 races one week. The times in seconds for each race were:

58 seconds, **62** seconds, **65** seconds, **59** seconds

Find the mean time in seconds for the four races.

58 + 62 + 65 + 59 = 244

244 ÷ 4 = 61

Mean time: **61 seconds**

(3) A pupil scored the following scores out of 20 on the last six maths tests:

18, 14, 17, 19, 13, 15

Find the mean score for these six tests.

18 + 14 + 17 + 19 + 13 + 15 = 96

96 ÷ 6 = 16

Mean score: **16**

(4) The height and weight of five friends are given below:

Height:	**146 cm**	**152 cm**	**139 cm**	**144 cm**	**154 cm**
Weight:	**32 kg**	**39 kg**	**41 kg**	**37 kg**	**46 kg**

Find the mean height and mean weight for this group of friends.

Height: 146 + 152 + 139 + 144 + 154 = 735

735 ÷ 5 = 147

Weight: 32 + 39 + 41 + 37 + 46 = 195

195 ÷ 5 = 39

Mean Height: **147 cm**

Mean Weight: **39 kg**

(5) The temperatures at midday for each day of one week were as follows:

14°C, 17°C, 16°C, 19°C, 13°C, 12°C, 14°C

Find the mean temperature for the week.

14 + 17 + 16 + 19 + 13 + 12 + 14 = 105

105 ÷ 7 = 15

Mean temperature: **15°C**

(6) Six friends get the following amounts of pocket money per week:

£4.50, £5.50, £6.00, £4.00, £2.50, £7.50

Find the mean amount of pocket money.

4.5 + 5.5 + 6 + 4 + 2.5 + 7.5 = 30

30 ÷ 6 = 5

Mean amount: **£5.00**

(7) The heights of four trees in a garden are:

1.5 m, 1.25 m, 1.36 m, 1.13 m

Find the mean height of these four trees.

1.5 + 1.25 + 1.36 + 1.13 = 5.24

5.24 ÷ 4 = 1.31

Mean height: **1.31 m**

(8) The number of sweets in eight boxes of sweets are:

36, 33, 38, 36, 39, 31, 32, 35

Find the mean number of sweets per box.

36 + 33 + 38 + 36 + 39 + 31 + 32 + 35 = 280

280 ÷ 8 = 35

Mean number: **35 sweets**

(9) The mean of three numbers is **15**. Two of the numbers are **12** and **19**.
What is the third number?

For a mean of 15, the total of the 3 numbers is 15 × 3 = 45

12 + 19 = 31, so the third number is:

45 - 31 = 14

Third number: **14**

(10) Three of the four test scores (out of 10) for a pupil are **7**, **9** and **6**. The mean score for all four tests is **8**.
What score did the pupil get in the fourth test?

For a mean of 8, the total of all 4 numbers is 8 × 4 = 32

7 + 9 + 6 = 22, so the fourth score is:

32 - 22 = 10

Fourth score: **10**