Y6 C2

Name: . . . . . .

Sheet 31 Probability

Choose the event which is more likely. Explain why.

1 Drawing a card from a pack and getting:

a) a black card ☑ b) a heart ☐

Half the cards in a pack are black but only one quarter are hearts. Therefore you have an even chance of drawing a black card but are unlikely to draw a heart.

2 Rolling a dice and getting: a) an even number ☐ b) a 6 ☐

3 Rolling a dice and getting: a) a multiple of 3 ☐ b) a number larger than 3 ☐

4 Spinning a coin and getting a head. ☐ Spinning 2 coins and getting 2 heads. ☐

5 Drawing a card from a pack and *not* getting: a) a heart ☐ b) an ace ☐

6 Spinning 2 coins and getting: a) a tail and a head ☐ b) 2 tails ☐

Y6 D2

Name: . . . . . .

Sheet 32 Word Problems

Example	How many 80 ml scoops of ice cream are there in a 4 litre tub?	4 litres = 4000 ml 4000 ÷ 80 = 50 Answer 50 scoops

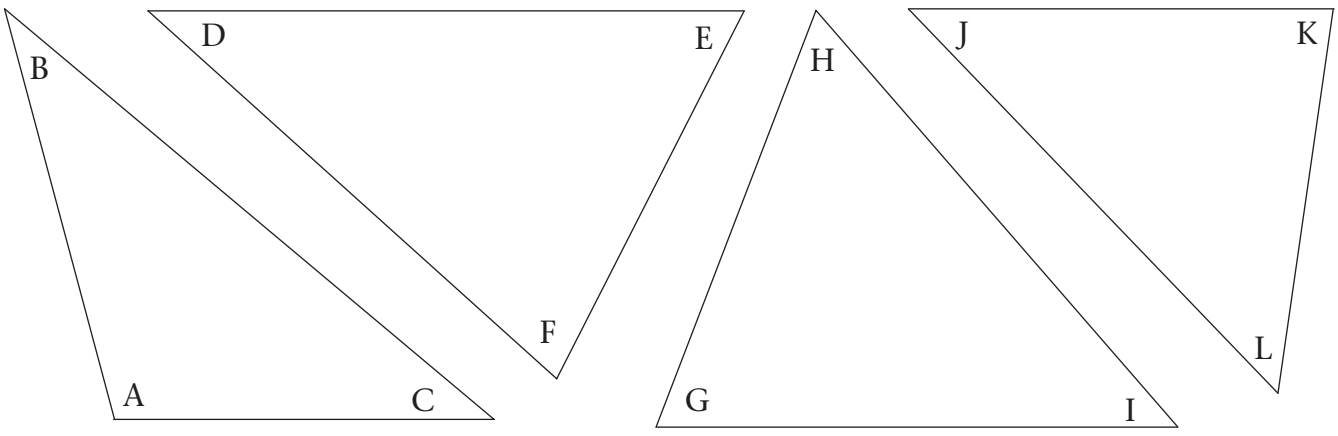
1. A field has a perimeter of 1.48 kilometres. It is 460 metres long. How wide is the field? ☐ m
2. A spoonful of sugar contains 5 g. How many spoonfuls are there in a 2 kg packet? ☐
3. A sprinkler uses 120 ml of water each second. How much does it use in one minute? ☐ litres
4. The circumference of a ball is 60 cm. The ball rolls 16.2 m. How many times does the ball make one complete roll? ☐
5. Eric weighs 83.25 kg. Ernie weighs 600 g less. What does Ernie weigh? ☐ kg
6. Jeremy takes 60 ml of medicine every day. How much medicine will he need for three weeks? ☐ litres
7. A cake weighs 3.6 kg. It is cut into 40 equal slices. What does each slice weigh? ☐ g
8. A football pitch has a perimeter of 350 m. Norman runs round the pitch 12 times. How far does he run altogether in kilometres? ☐ km
9. An ice cream tub contains 1.5 litres. 850 ml is eaten. How much ice cream is left in the tub? ☐ ml
10. A staple is made from 40 mm of wire. How many staples can be made from 10 metres of wire? ☐
11. One hundred marbles weigh 1.2 kg. Estimate the weight of one marble. ☐ g
12. A train travels 2.4 km in one minute. Estimate how far it travels is one second. ☐ m

Y6 D2

Name: . . . . . .

Sheet 33 Measuring Angles

Use a protractor. Measure the angles to the nearest degree.
Work out the sum of the angles.



1 A .....
B .....
C .....

Sum .....

2 D .....
E .....
F .....

Sum .....

3 G .....
H .....
I .....

Sum .....

4 J .....
K .....
L .....

Sum .....

5 Use a protractor and a ruler.
Draw a triangle with angles of 52° and 67°.
What is the third angle? ☐ °

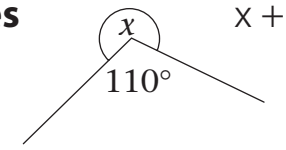
6 Draw a quadrilateral with an angle of 112° between angles of 85° and 76°.
What is the fourth angle? ☐ °

Y6 D2

Name: . . . . . .

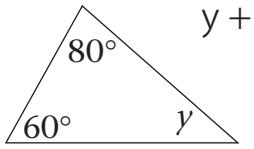
Sheet 34 Missing Angles

Examples



$x + 110° = 360°$

$x = 250°$



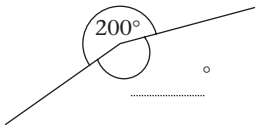
$y + 60° + 80° = 180°$

$y + 140° = 180°$

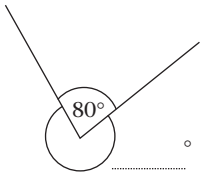
$y = 40°$

Write the missing angle on the line.

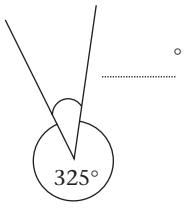
1



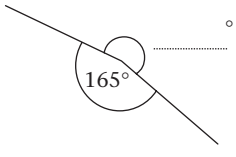
2



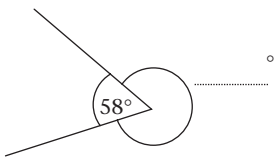
3



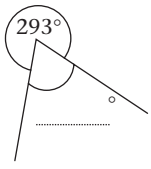
4



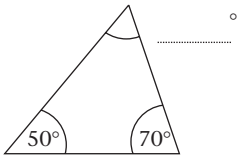
5



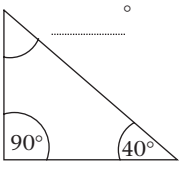
6



7



8



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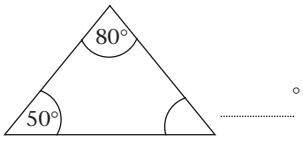

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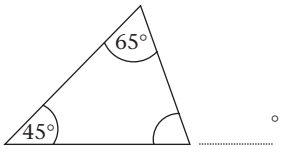

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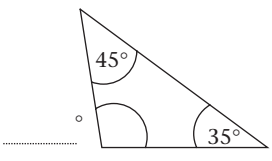
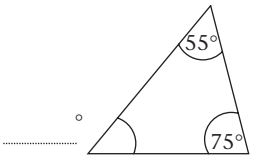


12



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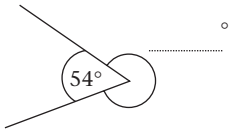
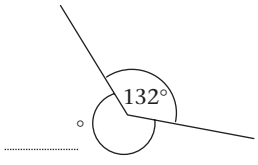
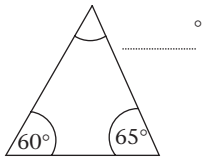


14

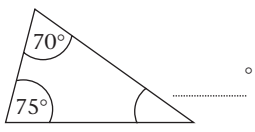


15

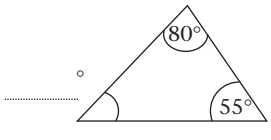
16



17



18



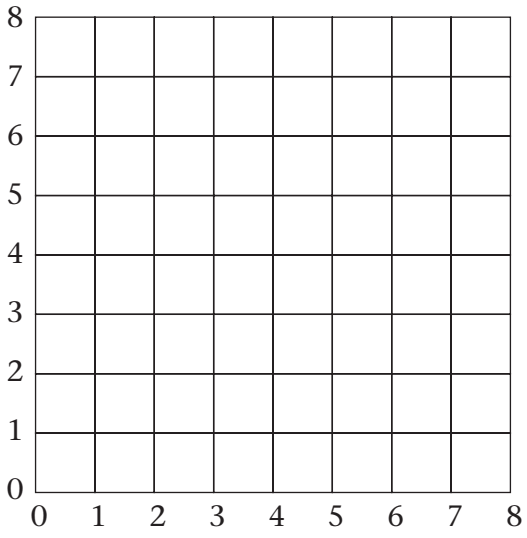
Y6 D2

Name: . . . . . .

Sheet 35 Co-ordinates

Plot the co-ordinates in the given order to form two sides of a square or rectangle. Complete the shape and write the missing co-ordinate.

1 (2, 6) (8, 6) (8, 3) ( )



2 (4, 0) (8, 4) (4, 8) ( )

3 (1, 5) (5, 7) (6, 5) ( )

4 (5, 4) (4, 1) (1, 2) ( )

5 (7, 4) (5, 7) (2, 5) ( )

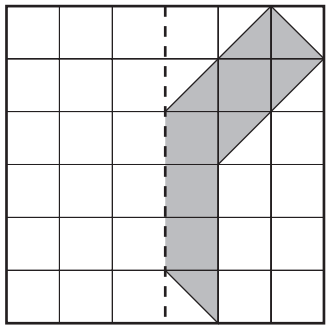
6 (3, 0) (1, 6) (4, 7) ( )

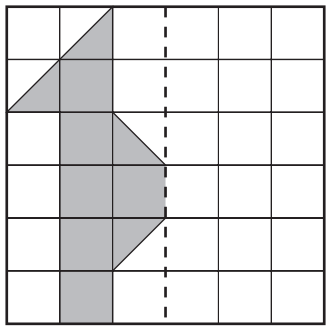
Y6 D2

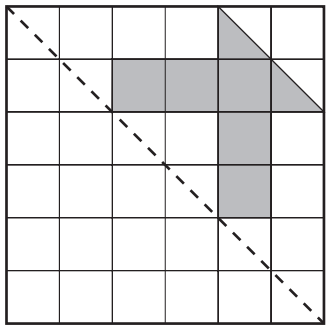
Name: . . . . . .

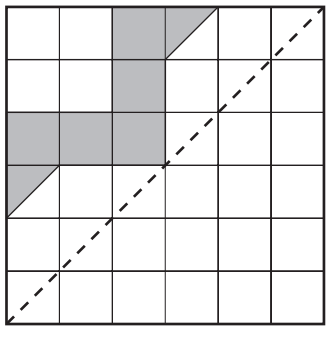
Sheet 36 Reflections, Rotations, Translations

Draw the reflection of each shape in the mirror line.

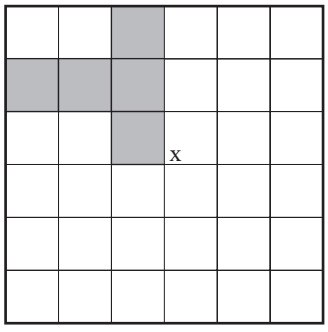
1 

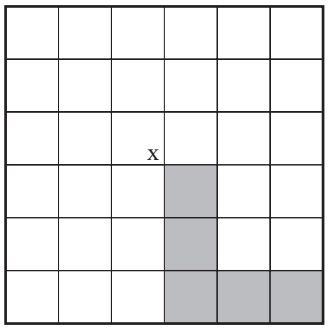
2 

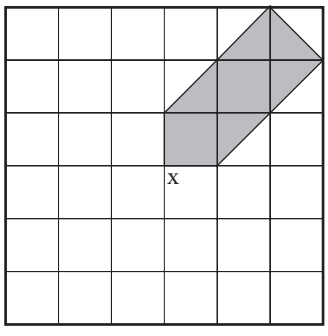
3 

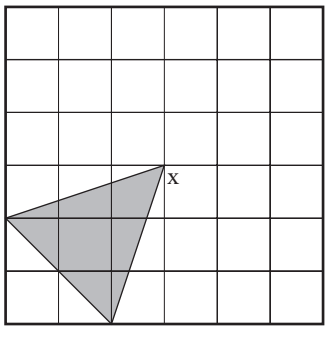
4 

Rotate each shape:
a) 90° clockwise about X
b) 180° about X

5 

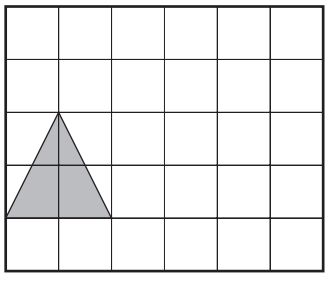
6 

7 

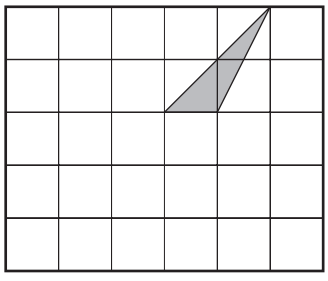
8 

Translate each shaded shape the number of squares shown.

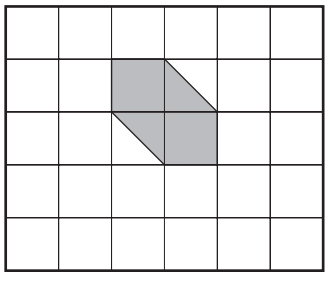
9 Right 3 Up 1



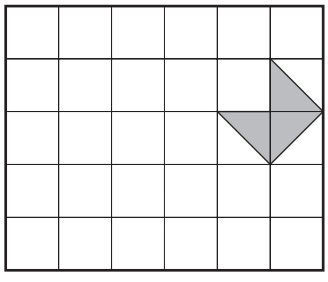
10 Left 2 Down 2



11 Right 2 Down 1



12 Left 4 Up 1



Y6 E2

Name: .....

Sheet 37 Fractions

Examples

How many times larger is 20 than 6?

$20 \div 6 = 3\frac{2}{6} = 3\frac{1}{3}$

20 is $3\frac{1}{3}$ times larger than 6.

Cancel $\frac{12}{20}$

$\frac{12}{20} \div 4 = \frac{3}{5}$

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

How many times larger is:

1. 75 than 10 .....
2. 46 than 8 .....
3. 70 than 30 .....
4. 670 than 100 .....
5. £24 than £5 .....
6. 1 litre than 300 ml .....
7. 1 kg than 80 g .....
8. 1 km than 600 m .....
9. 1 m than 40 cm .....
10. £1 than 15p .....
11. 1 week than 2 day .....
12. 1 hour than 25 minutes .....

Cancel each fraction into its simplest form.

13. $\frac{\cancel{4}}{\cancel{10}}\ \frac{2}{5}$
14. $\frac{2}{6}$
15. $\frac{6}{8}$
16. $\frac{3}{15}$
17. $\frac{6}{9}$
18. $\frac{5}{20}$
19. $\frac{4}{12}$
20. $\frac{75}{100}$
21. $\frac{8}{10}$
22. $\frac{15}{18}$
23. $\frac{45}{100}$
24. $\frac{3}{12}$
25. $\frac{10}{16}$
26. $\frac{2}{12}$
27. $\frac{24}{30}$

Find a number which lies between each pair of numbers.

28. $\frac{2}{5}$ and $\frac{3}{5}$ .....
29. 1 and $\frac{3}{4}$ .....
30. $\frac{7}{10}$ and $\frac{4}{5}$ .....
31. $\frac{1}{3}$ and $\frac{1}{4}$ .....
32. $\frac{1}{4}$ and $\frac{1}{6}$ .....
33. $\frac{9}{10}$ and 1 .....
34. $\frac{1}{2}$ and $\frac{3}{8}$ .....
35. $\frac{7}{8}$ and $\frac{7}{9}$ .....

Arrange each group of fractions in ascending order.

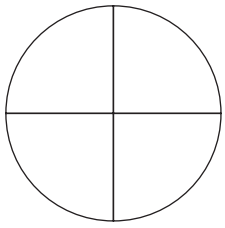
36. $\frac{1}{3}, \frac{2}{5}, \frac{4}{15}$ .....
37. $\frac{7}{12}, \frac{2}{3}, \frac{1}{2}$ .....
38. $\frac{4}{5}, \frac{17}{20}, \frac{3}{4}$ .....
39. $\frac{5}{8}, \frac{3}{4}, \frac{11}{16}$ .....

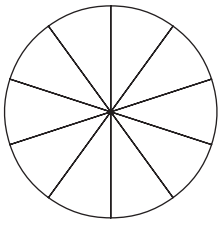
Y6 E2

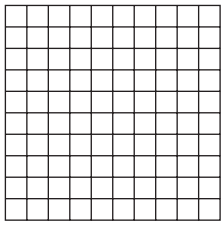
Name: . . . . . .

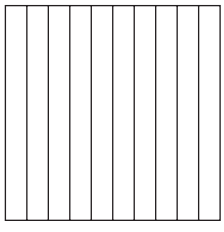
Sheet 38 Fractions, Decimals, Percentages

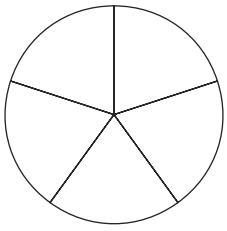
Colour in the fraction shown. Fill in the boxes.

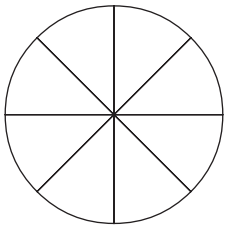
1 $\frac{2}{4}$  0. ☐ ☐ %

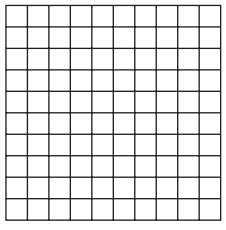
2 $\frac{\square}{\square}$  0. 90 %

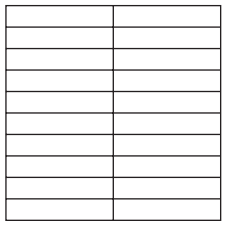
3 $\frac{\square}{\square}$  0. 36 %

4 $\frac{7}{10}$  0. ☐ %

5 $\frac{\square}{\square}$  0. 60 %

6 $\frac{\square}{\square}$  0.75 ☐ %

7 $\frac{\square}{\square}$  0. 9 %

8 $\frac{\square}{\square}$  0.85 ☐ %

9 Complete the table.

Fractions	$\frac{1}{2}$						$\frac{1}{4}$	$\frac{3}{10}$	$\frac{4}{5}$
Decimals	0.5			0.03	0.72	0.4			
Percentages	50%	17%	90%						

10 What percentage of the boxes contain :

a) ticks ☐ %

b) crosses ☐ %

c) circles ☐ %

	✓	○	○	×		○	✓
○		○	✓		✓	○	
	○		○	×			○
✓	×	○		✓	○	○	
○		✓	○	○	✓	×	○

Y6 E2

Name: . . . . . .

Sheet 39 Fractions/Percentages of Quantities

Examples	$\frac{5}{8}$ of 640	10 % of 40	30% of 40
	$(\frac{1}{8}$ of 640) × 5	$\frac{1}{10}$ of 40	(10 % of 40) × 3
	80 × 5	40 ÷ 10	4 × 3
	400	4	12

Work out

1. $\frac{1}{3}$ of 15 .....
2. $\frac{1}{10}$ of 90 .....
3. $\frac{1}{5}$ of 35 .....
4. $\frac{1}{8}$ of 32 .....
5. $\frac{5}{6}$ of 48 .....
6. $\frac{3}{4}$ of 24 .....
7. $\frac{4}{9}$ of 18 .....
8. $\frac{2}{7}$ of 63 .....
9. $\frac{7}{10}$ of 250 m ..... m
10. $\frac{2}{3}$ of 600 g ..... g
11. $\frac{5}{8}$ of £4 £.....
12. $\frac{3}{5}$ of 1 litre ..... ml

Work out

13. 10% of 60 .....
14. 50% of 48 .....
15. 25% of 280 .....
16. 20% of 50 .....
17. 30% of 400 .....
18. 5% of 1000 .....
19. 40% of 25p ..... p
20. 1% of £200 £.....
21. 60% of 5 metres ..... m
22. 20% of 2 litres ..... ml
23. 30% of 200 g ..... g
24. 5% of £8.40 ..... p

25. 40 questions in a test
Jafar gets seven eighths right.
He scores ☐ out of 40.

26. 56 children in the orchestra
Four sevenths are in Year 6
☐ children are not in Year 6.

27. A T-shirt costs £4.00.
Its price is reduced by 20%.
The new price is £ ☐.

28. June earns 5% interest on her savings. She has £250 in her account. In one year she earns £ ☐ interest.

Y6 E2

Name: . . . . . .

Sheet 40 Ratio and Proportion

1 Rewrite the ingredients for 30 cookies.

PEANUT COOKIES
75 g butter
50 g peanut butter
125 g sugar
100 g flour
25 g peanuts
Makes 10

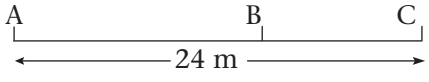
2 Rewrite the ingredients for 6 cookies.

3 A necklace is made using this pattern of beads. ●●○○○●●○○○
Complete each sentence.

a) There are ☐ white beads in every 45 beads.

b) There are ☐ black beads for every 45 white beads.

4 AB is twice as long as BC.
How long is AB? ☐ m



5 One can of beans weighs 200 g.
How many cans are there in a box weighing 9.6 kg? ☐

6 A plank is 2 metres long. It is cut into two lengths. The longer piece is four times the length of the shorter piece.
How long is each length? ☐ cm ☐ m

7 There are 60 children in Year 6. Three in every five are boys.
How many girls are there? ☐

8 For every 2 packets of plain crisps sold, 7 flavoured packets are sold.
Altogether 63 packets are sold. How many of these were plain? ☐

9 In November, 3 in every 7 children in a class were absent at least once. There are 28 children in the class. How many of the children did not miss a day? ☐

Y6 A3

Name: . . . . . .

Sheet 41 Decimal Numbers

Arrange the decimals in ascending order.

1. 1.178 8.17 7.81 1.78 7.118 . . . . . .
2. 0.506 0.536 5.06 0.563 0.56 . . . . . .
3. 9.22 2.922 9.229 2.99 9.29 . . . . . .
4. 1.111 1.1 11.11 1.11 11.1 . . . . . .
5. 3.34 3.4 3.333 3.344 3.43 . . . . . .

Write the number which lies halfway between each pair of numbers.

6. 2 and 3 . . . . . .
7. 1.64 and 1.7 . . . . . .
8. 10.7 and 11 . . . . . .
9. 2.86 and 2.92 . . . . . .
10. 3.41 and 3.408 . . . . . .
11. 0.361 and 0.367 . . . . . .
12. 1.285 and 1.295 . . . . . .
13. 5.47 and 5.48 . . . . . .
14. 0.6 and 0.65 . . . . . .
15. 8.11 and 8.16 . . . . . .

Write the missing number in the box.

16. 3.17 + ☐ = 3.182
17. 0.575 + ☐ = 0.6
18. 4.269 + ☐ = 4.569
19. 2.68 + ☐ = 2.7
20. 9.036 + ☐ = 9.04
21. 0.648 – ☐ = 0.148
22. 7.22 – ☐ = 7.216
23. 5.371 – ☐ = 5.301
24. 0.045 – ☐ = 0.02
25. 1.5 – ☐ = 0.999

Y6 A3

Name: . . . . . .

Sheet 42 Mental Calculations

Write the missing number in the box.

1. 0.8 + 0.349 = ☐
2. 1.75 + 2.6 = ☐
3. 3 – 1.64 = ☐
4. 8.9 – 0.009 = ☐
5. 0.43 × 10 = ☐
6. 0.012 × 6 = ☐
7. 0.2 ÷ 4 = ☐
8. 1500 ÷ 1000 = ☐
9. 2.39 + ☐ = 5
10. 0.79 + ☐ = 2
11. 11.44 – ☐ = 9.64
12. 5.2 – ☐ = 5.113
13. 0.008 × ☐ = 0.8
14. 0.66 × ☐ = 1.32
15. 1.4 ÷ ☐ = 0.28
16. 0.83 ÷ ☐ = 0.083
17. 3.57 + 0.06 = ☐
18. 0.016 + 1.408 = ☐
19. 0.348 – 0.16 = ☐
20. 17 – 2.85 = ☐
21. 0.24 × 5 = ☐
22. 0.06 × 1000 = ☐
23. 9.5 ÷ 100 = ☐
24. 2 ÷ 8 = ☐
25. ☐ + 9.9 = 10.38
26. ☐ + 0.025 = 0.5
27. ☐ – 6.47 = 2.33
28. ☐ – 0.055 = 1.045
29. ☐ × 3 = 0.27
30. ☐ × 100 = 54.8
31. ☐ ÷ 1000 = 0.037
32. ☐ ÷ 2 = 0.075

Y6 A3

Name: . . . . . .

Sheet 43 Mental Word Problems

Write the missing number in the box.

1. A water butt holds 31.7 litres. 12.9 litres is added.
   The butt now holds ☐ litres.
2. A plank is 3 metres long. 1.25 m is sawn off.
   The plank is now ☐ m long.
3. One cake costs £0.65. Four cakes cost £ ☐.
4. Ten boxes of cereal weigh 7.5 kg. One box weighs ☐ kg.
5. There is 2.5 kg of potatoes in a bag. 1.8 kg is used.
   There is ☐ kg left.
6. A motor car race is 50 laps of the circuit. One lap is 3.2 km.
   The race is ☐ km long.
7. Helen has £1.38. Cindy has £2.47. Cindy has £ ☐ more than Helen.
8. Two litres of lemonade is poured equally into 8 glasses.
   There is ☐ litres in each glass.
9. The temperature in Glasgow is 18.9°C. In London it is 2.5°C warmer.
   The temperature in London is ☐ °C.
10. One bottle holds 0.7 litres. 6 bottles hold ☐ litres.
11. A computer game costs £4.95. Chico pays for it with a £10 note.
    He receives £ ☐ change.
12. A ribbon is 4 metres long. It is cut into 20 equal lengths.
    Each length is ☐ m.
13. Three lollies cost £ 2.10. One lolly costs £ ☐.
14. At birth Lily weighed 3.7 kg. Five months later she weighed 6.25 kg.
    Her weight had increased by ☐ kg.
15. A pin weighs 0.2 grams. 150 pins weigh ☐ g.

Y6 A3

Name: . . . . . .

Sheet 44 Multi-step Problems

Example	A lorry is 2.48 metres wide. The gap between the lorry and the side of the road is 28.5 cm on either side. How wide is the road?	28.5 cm × 2 = 57 cm 2.48 m = 248 cm 248 cm + 57 cm = 305 cm Answer 3.05 m

Show your calculations and any working out.

1 How many hours are there in the 3 summer months, June, July and August?

Answer ☐

2 Beef costs £8.60 per kilogram. Vincent buys 400 g. How much change will he receive from £10?

Answer £ ☐

3 Eight 150 ml glasses are filled from a jug holding 1.65 litres of orange juice. How much juice is left?

Answer ☐ ml

4 One lap of a running track is 400 m. Reeta runs the same number of laps each day. In 5 days she runs 32 km. How many laps does she run each day?

Answer ☐

5 The combined weight of 2 parcels is 1.42 kg. The heavier parcel weighs 0.28 kg more than the lighter one. What does each parcel weigh?

Answers ☐ kg ☐ kg

6 Aaron buys 3 ice creams for £0.85 each and 2 lollies. He pays £5 and receives £1.15 change. What does one lolly cost?

Answer £ ☐

Y6 B3

Name: . . . . . .

Sheet 45 Word Problems

Show your calculations. Write the answer in the box.

1 A box of 60 apples weighs 8.6 kg. The box weighs 0.2 kg. What is the mean weight of one apple?

8.6 – 0.2 = ...

. . . . . ÷ 60 = ...

Answer ☐ g

2 A room is 3.8 m long and 4.5 m wide. How much will it cost to cover the room with carpet costing £12.90 per square metre?

Answer £ ☐

3 There is 32.4 litres of petrol in a car. The car travels 120 miles. There is now 15.6 litres left. What is the mean amount of petrol used in litres per mile?

Answer ☐ litres per mile

4 A baker mixes 3.75 kg of brown flour with some white flour. He uses tha mixed flour to make 24 loaves. Each loaf uses 0.25 kg of flour. How much white flour was used?

Answer ☐ kg

Write a word problem for each calculation.
Use a different context (money, length, weight, etc.) for each problem.

5 3.89 – 2.4 = 1.49

6 2.45 × 4 = 9.8

7 3.6 ÷ 0.4 = 9

Y6 B3

Name: . . . . . .

Sheet 46 Divisibility Tests and Factors

Whole numbers are divisible by:	
2 if the number is even	6 if the number is even and divisible by 3
3 if the sum of the digits is divisible by 3	8 if the last 3 digits are divisible by 8
4 if the last 2 digits are divisible by 4	9 if the sum of the digits is divisible by 9
5 if the last digit is 0 or 5	10 if the last digit is 0.

Write True or False for each statement.

1. 3915 is divisible by 5. .....
2. 1485 is divisible by 3. .....
3. 705 is divisible by 10. .....
4. 4132 is divisible by 8. .....
5. 2574 is divisible by 6. .....
6. 2245 is divisible by 2. .....
7. 5787 is divisible by 9. .....
8. 1392 is divisible by 4. .....
9. 1436 is divisible by 6. .....
10. 2376 is divisible by 8. .....
11. 1639 is divisible by 3. .....
12. 5004 is divisible by 5. .....
13. 3970 is divisible by 10. .....
14. 7138 is divisible by 2. .....
15. 2956 is divisible by 4. .....
16. 3474 is divisible by 9. .....

Fill in the boxes to complete the prime factors of these numbers.

17. 16 = 2 × 2 × 2 × ☐
18. 27 = ☐ × ☐ × ☐
19. 35 = ☐ × ☐
20. 39 = ☐ × ☐
21. 42 = ☐ × ☐ × ☐
22. 54 = ☐ × ☐ × ☐ × ☐
23. 66 = ☐ × ☐ × ☐
24. 72 = ☐ × ☐ × ☐ × ☐ × ☐
25. 75 = ☐ × ☐ × ☐
26. 84 = ☐ × ☐ × ☐ × ☐
27. 92 = ☐ × ☐ × ☐
28. 100 = ☐ × ☐ × ☐ × ☐

Y6 B3

Name: . . . . . .

Sheet 47 Statements and Puzzles

Find 3 examples to match each statement.

1 Multiplying a decimal number by 1000 moves every digit 3 places to the left.

$0.627 \times 1000 = 627.0$

.....

.....

.....

2 A multiple of 14 is also a multiple of 7.

.....

.....

.....

3 The sum of 5 consecutive numbers is half the middle number multiplied by 10.

.....

.....

.....

4 Multiplying a whole number by 0.25 is the same as dividing by 4.

.....

.....

.....

5 I think of a number.
I multiply by 4.
I subtract 27.
The answer is 85.
My number is ☐.

6 I think of a number.
I divide by 25.
I add 66.
The answer is 90.
My number is ☐.

7 I think of a number.
I add 14.
I multiply by 9.
The answer is 225.
My number is ☐.

8 I think of a number.
I subtract 126.
I divide by 19.
The answer is 46.
My number is ☐.

Write the missing number in the box.

9 (☐ + 23) × 7 = 840

10 (☐ – 72) ÷ 5 = 3.6

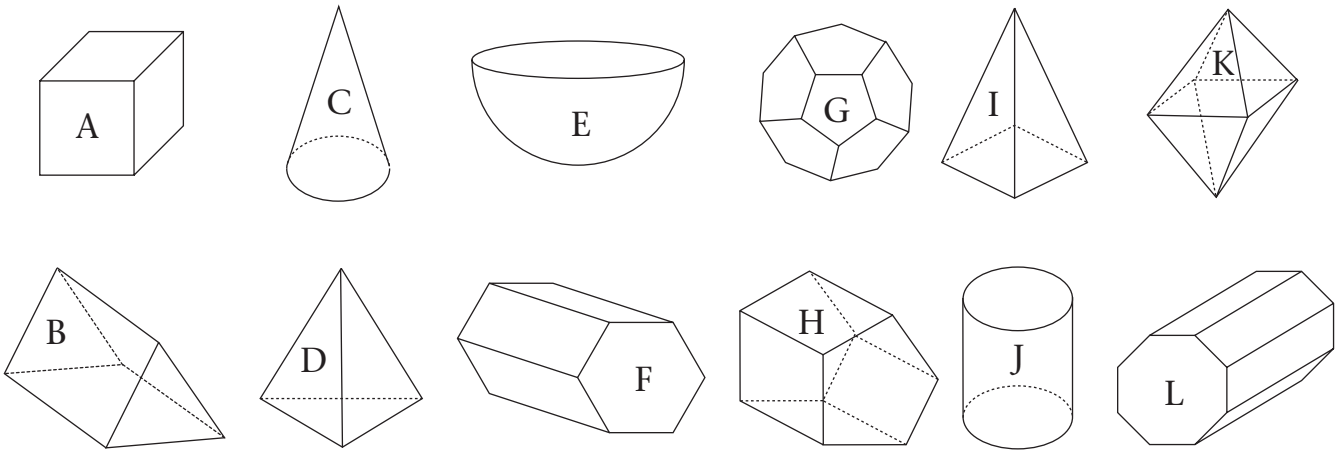
11 (☐ × 50) – 3.5 = 4.5

12 (☐ ÷ 8) + 27 = 42

Y6 B3

Name: . . . . . .

Sheet 48 Three-dimensional Shapes



1 Write each of the letters A–L by the name of the correct shape.

..... pentagonal prism	..... octahedron	..... triangular prism
..... cube	..... cylinder	..... square based pyramid
..... hemisphere	..... cone	..... dodecahedron
..... octagonal prism	..... tetrahedron	..... hexagonal prism

2 Complete the table for these prisms.

Prism	Faces	Edges	Vertices
triangular			
cuboid			
pentagonal			
hexagonal			
heptagonal			
octagonal			
nonagonal			
decagonal			

3 Write the letters of three shapes with:

a) faces with parallel edges ....

b) faces with perpendicular edges ....

c) parallel faces ....

d) perpendicular faces ....

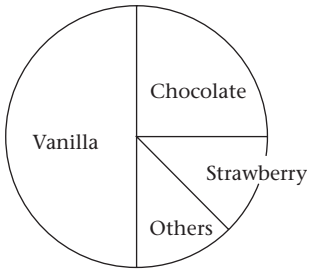
Y6 C3

Name: . . . . . .

Sheet 49 Pie Charts

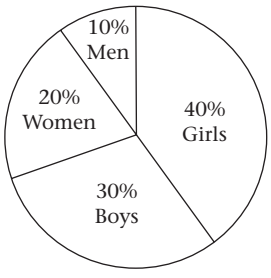
Complete the table using the information displayed in the pie chart.

1 The ice cream flavours chosen by 32 customers of a seaside cafe.



Flavour	Customers
Chocolate	
Strawberry	
Vanilla	
Others	

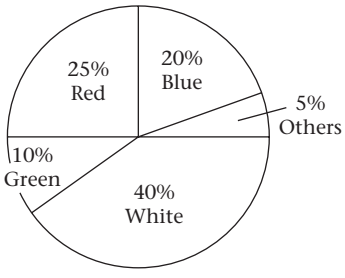
2



150 people at a swimming pool.

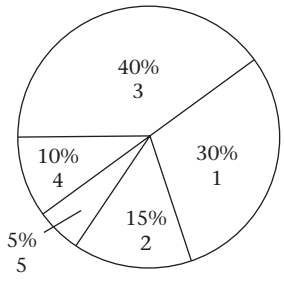
Group	Number
Boys	
Girls	
Men	
Women	

3 The colours of 400 cars in a car park.



Colours	Cars
Blue	
Green	
Red	
White	
Others	

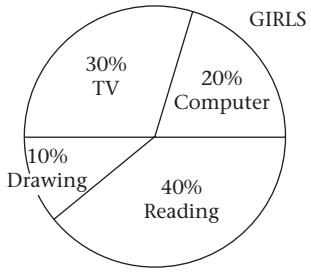
4

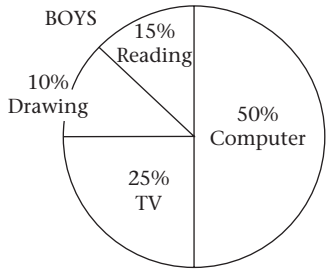


The TV channels watched by 120 viewers.

Channel	Viewers
Channel 1	
Channel 2	
Channel 3	
Channel 4	
Channel 5	

5 In a survey 40 girls and 60 boys were asked how they had spent their leisure time the previous evening. These are the results.





a) How many boys did some drawing? ☐

b) How many girls played on the computer? ☐

c) How many more girls than boys chose to read a book? ☐

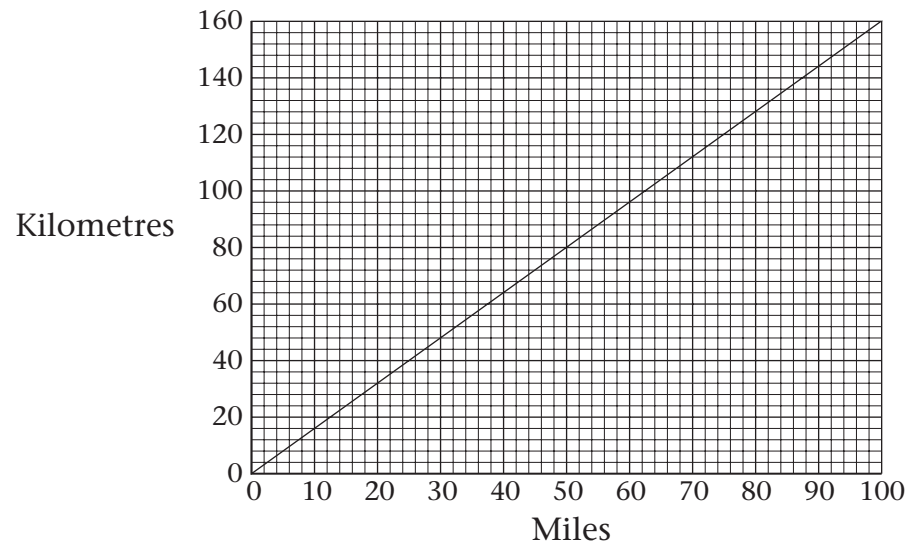
d) Did more boys or girls choose to watch TV? . . . . . .

Y6 C3

Name: . . . . . .

Sheet 50 Interpreting Graphs and Charts

This graph converts kilometres into miles.



Convert into miles:

1 64 km ☐ miles

2 160 km ☐ miles

3 40 km ☐ miles

4 128 km ☐ miles

5 16 km ☐ miles

6 60 km ☐ miles

Convert into kilometres:

7 90 miles ☐ km

8 20 miles ☐ km

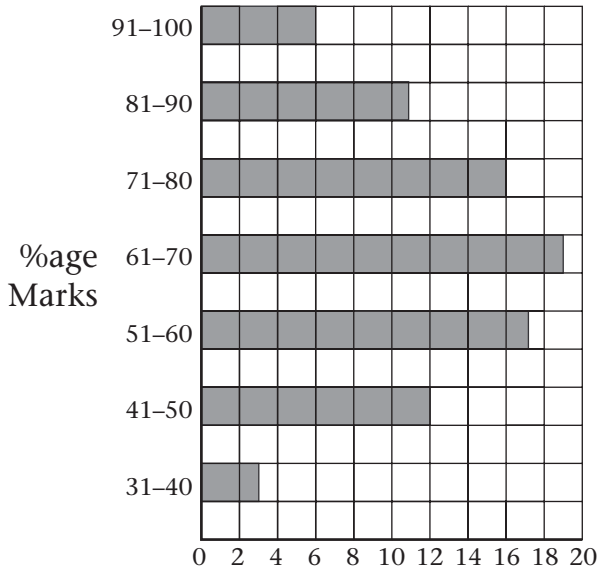
9 60 miles ☐ km

10 30 miles ☐ km

11 70 miles ☐ km

12 50 miles ☐ km

The bar chart shows the Maths Test marks for the children in Year 6 given as percentages.



13 How many children scored more than 80%? ☐

14 How many children scored 50% or less? ☐

15 How many children scored more than 70% but less than 81%? ☐

16 How many children took the test altogether? ☐

17 What proportion of the children scored:

a) 91% – 100% . . . . . .

b) 41% – 50% . . . . . .

c) 51% – 90% . . . . . .

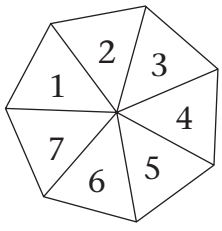
Y6 C3

Name: . . . . . .

Sheet 51 Probability

Describe the probability of each spinner landing on the numbers shown.

1



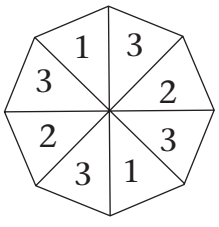
a) an odd number .....

b) an even number .....

c) 8 .....

d) less than 8 .....

2



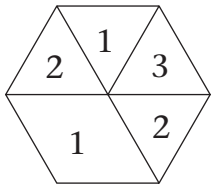
a) 3 .....

b) more than 3 .....

c) less than 3 .....

d) an odd number .....

3



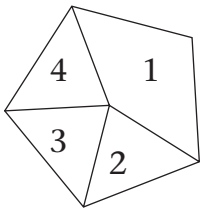
a) 1 .....

b) 2 .....

c) an odd number .....

d) an even number .....

4



a) an odd number .....

b) an even number .....

c) a square number .....

d) a prime number .....

Describe the probability of these events. Use your judgement to place them on the scale below.

6 An astronaut will land on Mars in your lifetime. .....

7 The Prime Minister's favourite colour is blue. .....

8 More than 3 children will be absent from school tomorrow. .....

9 It will rain on the 10th January next year. .....

10 One of your classmates will become a famous artist. .....

impossible evens certain

Y6 D3

Name: . . . . . .

Sheet 52 Metric Units

Fill in the boxes.

1 3 cm 7 mm = ☐ cm = ☐ mm

2 1 m 250 mm = ☐ m = ☐ cm

3 2 m 7 cm = ☐ m = ☐ cm

4 1 km 560 m = ☐ km = ☐ m

5 0 kg 675 g = ☐ kg = ☐ g

6 8 kg 125 g = ☐ kg = ☐ g

7 2 litres 300 ml = ☐ litres = ☐ ml

8 6 litres 850 ml = ☐ litres = ☐ ml

9 22 mm = ☐ cm

10 470 mm = ☐ m

11 368 cm = ☐ m

12 15 900 m = ☐ km

13 870 g = ☐ kg

14 5375 g = ☐ kg

15 2500 ml = ☐ litres

16 40 ml = ☐ litres

Show your working out. Write the answer in the box.

17 How many 40 cm lengths of string can be cut from 17.6 metres?

Answer ☐

18 A crate of apples weighs 4.65 kg. The crate weighs 748 g. What do the apples weigh?

Answer ☐ kg

19 Kiomi buys 300 g of meat for £2.16. How much does 1 kg cost.

Answer £ ☐

20 A jug contains 2.4 litres of diluted orange squash. One fifth is squash. How much is water?

Answer ☐ litres

Y6 D3

Name: . . . . . .

Sheet 53 Imperial Units

You need to know these imperial units and their approximate metric equivalents.

LENGTH	MASS	CAPACITY
1 inch ≈ 2.5 cm	1 ounce ≈ 30 g	1 pint ≈ 0.6 litres
1 foot ≈ 30 cm	1 kg ≈ 2.2 pounds (lb)	1 gallon ≈ 4.5 litres
1 yard ≈ 90 cm		
1 mile ≈ 1.6 km	The sign '≈' means is approximately equal to.	
8 km ≈ 5 miles		

Write down the imperial unit you would use to measure the following:

LENGTHS

1. a child's height . . . . . .
2. a motorway . . . . . .
3. a corridor . . . . . .
4. a book . . . . . .

MASSES

5. a dog . . . . . .
6. an apple . . . . . .

CAPACITIES

7. a jug . . . . . .
8. a paddling pool . . . . . .

Complete by putting > or < in the box.

9. 3 miles ☐ 5 km
10. 6 pints ☐ 3 litres
11. 8 inches ☐ 18 cm
12. 10 pounds ☐ 5 kg
13. 4 yards ☐ 4 m
14. 8 gallons ☐ 35 litres
15. 13 feet ☐ 4 m
16. 8 ounces ☐ 250 g
17. 30 miles ☐ 45 km
18. 42 pounds ☐ 20 kg
19. 5 inches ☐ 15 cm
20. 3 pints ☐ 2 litres

Draw a circle around the best estimate.

21. a kitchen sink's capacity
    1 gallon 10 gallons 100 gallons
22. a can of beans
    1 lb 10 lbs 100 lbs
23. a running track
    1 yard 10 yards 100 yards
24. a classroom's height
    1 foot 10 feet 100 feet

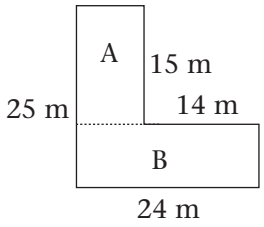
Y6 D3

Name: . . . . . .

Sheet 54 Area and Perimeter

Example

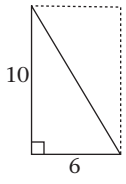
Find the area of the L-shaped garden



Area of A = (15 × 10) m^2 = 150 m^2
Area of B = (24 × 10) m^2 = 240 m^2
Area of garden = (240 + 150) m^2 = 390 m^2

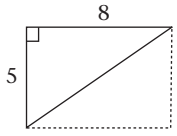
Find the area of each rectangle (R) and triangle (T). All lengths are in cm.

1



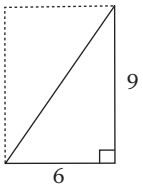
R = ☐ cm^2
T = ☐ cm^2

2



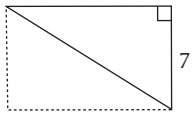
R = ☐ cm^2
T = ☐ cm^2

3



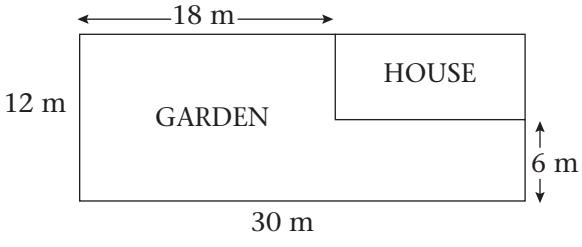
R = ☐ cm^2
T = ☐ cm^2

4



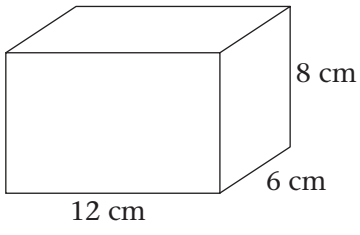
R = ☐ cm^2
T = ☐ cm^2

5



Perimeter of house ☐ m
Area of house ☐ m^2
Perimeter of garden ☐ m
Area of garden ☐ m^2

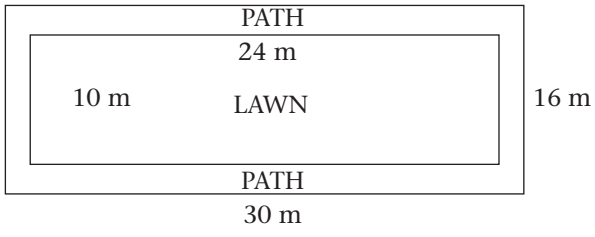
6



Find the smallest amount of paper needed to cover this box?

☐ cm^2

7



Perimeter of lawn ☐ m
Outer perimeter of path ☐ m
Area of lawn ☐ m^2
Area of path ☐ m^2

8 A room measures 5 m by 3 m.

a) How much will it cost to cover the floor with carpet costing £16 per square metre? £ ☐

b) How many 20 cm by 20 cm tiles would be needed to cover the floor? ☐

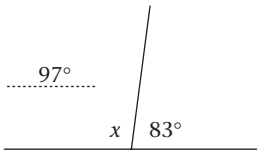
Y6 D3

Name: . . . . . .

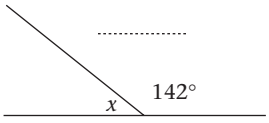
Sheet 55 Missing Angles

Write the missing angle (x) on the line.

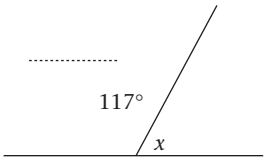
1



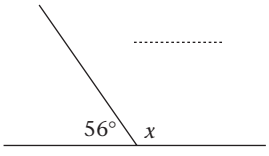
2



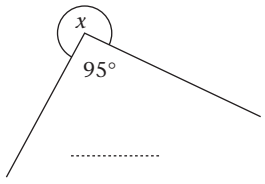
3



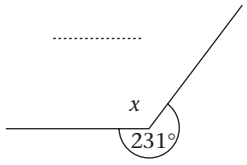
4



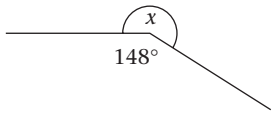
5



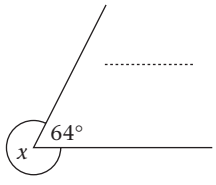
6



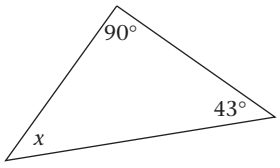
7



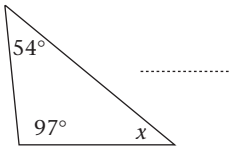
8



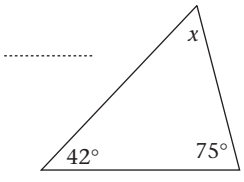
9



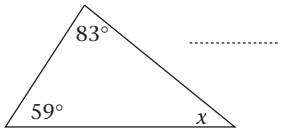
10



11



12



How many degrees is the clockwise turn from:

13 S to SW .....

14 W to S .....

15 NE to SE .....

16 SW to E .....

17 E to W .....

18 N to NW .....

19 SE to W .....

20 NW to S .....

How many degrees does the hour hand turn from:

21 3:00 to 6:00 .....

22 7:00 to 8:00 .....

23 4:00 to 6:00 .....

24 10:00 to 4:00 .....

25 5:00 to 12:00 .....

26 2:00 to 7:00 .....

27 8:00 to 12:00 .....

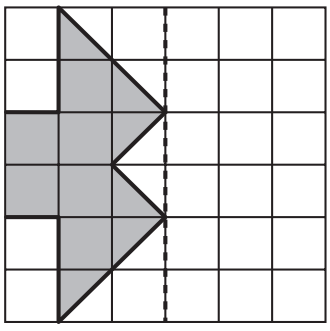
28 11:00 to 8:00 .....

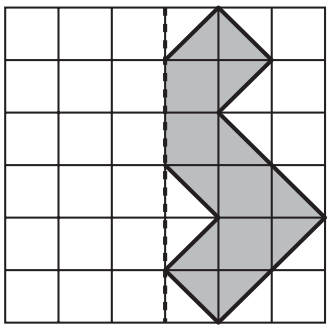
Y6 D3

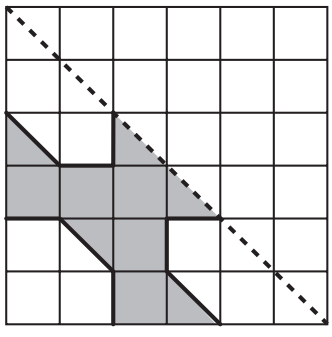
Name: . . . . . .

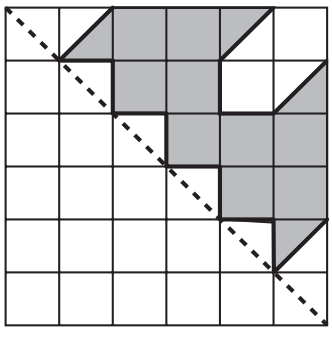
Sheet 56 Transformations

Draw the reflection of each shape in the mirror line.

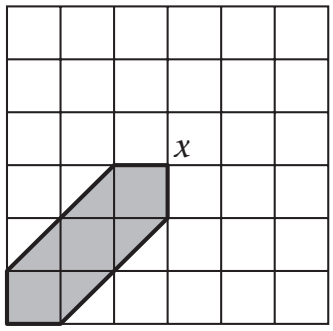
1 

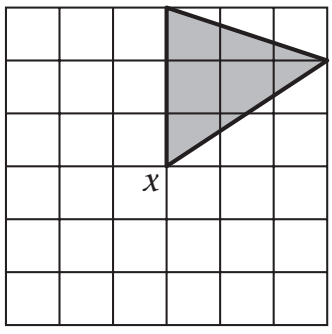
2 

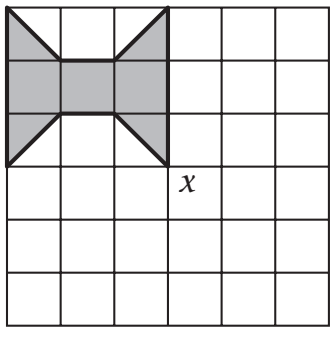
3 

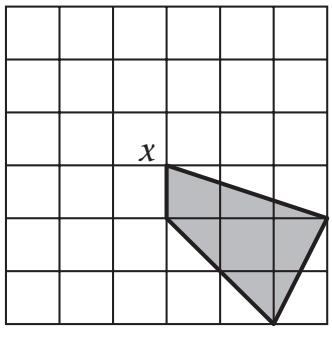
4 

Rotate each shape:
a) 90° clockwise about x
b) 180° about x

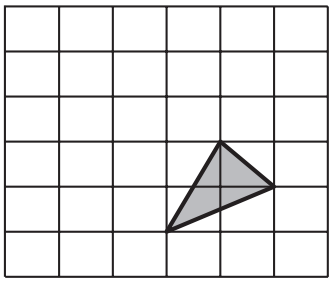
5 

6 

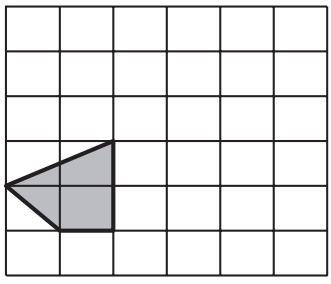
7 

8 

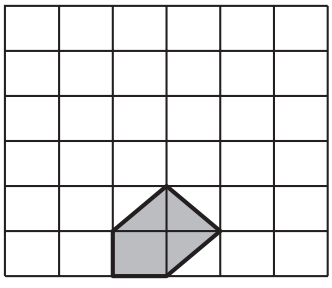
Translate each shaded shape the number of squares shown.

9 

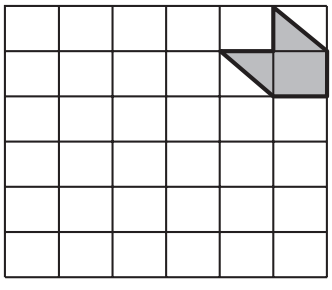
Left 2 Up 2

10 

Right 3 Down 1

11 

Right 1 Up 4

12 

Left 4 Down 3

Y6 E3

Name: . . . . . .

Sheet 57 Written Method (+/–)

Two problems have been completed as examples.

1 2752 + 1369 = 4121 (1 1 1)

2 4778 + 2886 = _____

3 3985 + 1736 = _____

4 5867 + 3457 = _____

5 6496 + 2989 = _____

6 4659 + 3698 = _____

7 5738 + 2865 = _____

8 3976 + 3947 = _____

9 432.9 + 188.4 = _____

10 34.5 + 17.93 = _____

11 5.638 + 3.665 = _____

12 724.4 + 193.9 = _____

13 35.96 + 28.7 = _____

14 6.742 + 2.588 = _____

15 586.5 + 174.9 = _____

16 42.7 + 36.95 = _____

17 3523 − 1769 = 1754 (2 14 11 13)

18 4362 − 2876 = _____

19 5615 − 1587 = _____

20 2237 − 1939 = _____

21 6170 − 3898 = _____

22 4553 − 1457 = _____

23 7246 − 2979 = _____

24 5734 − 2845 = _____

25 324.1 − 164.8 = _____

26 71.36 − 33.8 = _____

27 4.354 − 2.725 = _____

28 648.3 − 389.1 = _____

29 74.31 − 16.74 = _____

30 5.625 − 2.76 = _____

31 951.2 − 458.3 = _____

32 83.4 − 67.58 = _____

Y6 E3

Name: . . . . . .

Sheet 58 Written Method for Multiplication

Work from the right and carry.

1 289 × 2 = _____

2 596 × 7 = _____

3 938 × 4 = _____

4 460 × 9 = _____

5 547 × 6 = _____

6 734 × 8 = _____

7 3870 × 7 = _____

8 5925 × 5 = _____

9 2764 × 8 = _____

10 6058 × 3 = _____

11 3783 × 9 = _____

12 4590 × 6 = _____

Work out

13 467 × 13

..... (467 × 10)

____ (467 × 3)

____

14 189 × 24

..... (189 × 20)

____ (189 × 4)

____

15 236 × 35

..... (236 × 30)

____ (236 × 5)

____

16 352 × 18

..... ( )

____ ( )

____

17 174 × 34

..... ( )

____ ( )

____

18 463 × 27

..... ( )

____ ( )

____

19 581 × 43

..... ( )

____ ( )

____

20 427 × 25

..... ( )

____ ( )

____

21 756 × 36

..... ( )

____ ( )

____

Y6 E3

Name: . . . . . .

Sheet 59 Written Method (HTU ÷ TU)

Work out. Write the answer in the box.

1 394 ÷ 15 = ☐

394

– ____ (15 × 20)

.....

– ____ (15 × 6)

.....

2 462 ÷ 13 = ☐

462

– ____ (13 × 30)

.....

– ____ (13 ×)

.....

3 933 ÷ 22 = ☐

933

– ____ (22 × 40)

.....

– ____ (22 ×)

.....

4 743 ÷ 17 = ☐

743

– ____ (17 × 40)

.....

– ____ (17 ×)

.....

5 583 ÷ 23 = ☐

583

– ____ (23 ×)

.....

– ____ (23 ×)

.....

6 716 ÷ 34 = ☐

716

– ____ (34 ×)

.....

– ____ (34 ×)

.....

7 961 ÷ 25 = ☐

961

– ____ (25 ×)

.....

– ____ (25 ×)

.....

8 678 ÷ 19 = ☐

678

– ____ (19 ×)

.....

– ____ (19 ×)

.....

9 793 ÷ 32 = ☐

793

– ____ ( )

.....

– ____ ( )

.....

10 210 ÷ 13 = ☐

210

– ____ ( )

.....

– ____ ( )

.....

11 960 ÷ 27 = ☐

960

– ____ ( )

.....

– ____ ( )

.....

12 834 ÷ 36 = ☐

834

– ____ ( )

.....

– ____ ( )

.....

Y6 E3

Name: . . . . . .

Sheet 60 Ratio and Proportion

Example	The ratio of white beads to black is 3:2	Method
	There are 40 beads altogether.	3 + 2 = 5
	How many are white?	40 ÷ 5 = 8
	Answer 24 white beads	3 × 8 = 24

1. A map has a scale of 1cm to 8 km. The distance between two villages on the map is shown as 3.5 cm. How far apart are the actual villages? ☐ km

2. Nuts cost £4.50 for 1 kg. Indigo buys 400 g. How much does she pay? £ ☐

3. Fish costs £8.00 for 1 kg. Indigo pays £5 for three fillets. What do the three fillets weigh? ☐ g

4. The ratio of black cars to white cars in a showroom is 3:2. There are 18 black cars on display. How many white cars are there? ☐

5. Orange squash is made by mixing water and concentrated orange in a ratio of 4:1. How much orange is needed to make 1 litre of squash? ☐ ml

6. There are 350 people in a theatre. The ratio of adults to children is 5:2. How many adults are there? ☐

7. A recipe for four people uses 500 g of meat. How much meat is needed for three people? ☐ g

8. A farmer has three cows for every five sheep. There are 120 cows on the farm. How many sheep are there? ☐

9. In June there were 5 sunny days to every cloudy day. How many days were sunny? ☐

10. A football team scored 72 goals in the season. Glenn scored for in every nine. How many goals did he score? ☐