Maths Revision
Answers

Number and Place Value

1a) Continue the sequence by increasing each number by 25:
150, 175, 200, 225, 250, 275, 300

b) Continue the sequence by decreasing each number by 100:
930, 830, 730, 630, 530, 430, 330

c) Continue the sequence by increasing each number in powers of 1000:
11 345, 12 345, 13 345, 14 345, 15 345, 16 345

2a) What is 100 less than 1902? **1802**

b) What is 1000 more than 3249? **4249**

c) Count forwards and backwards through zero:
3, 2, 1, 0, -1, -2, -3, -4

3) The temperature inside is 19°C and outside is -4°C. What is the difference in temperature between inside and outside? **23°C**

4a) Underline the hundreds digit in the following numbers:
7**8**45 **6**89 2**0**38

b) Underline the tens digit in the following numbers:
7**7**6 38**9**0 14**2**8

Compare using <, > or =

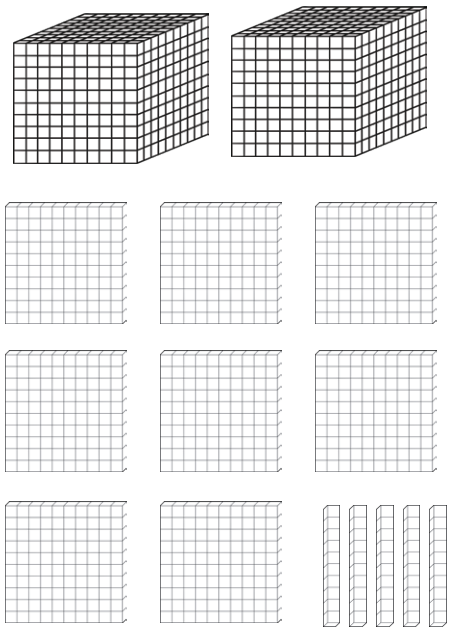
5a) **141 141 < 144 114**
501 243 > 501 234

b) **Organise the following from smallest to largest:**

11 112 , 11 211, 121 211, 122 121, 122 211

Use models and representations of numbers.

6) Represent 2850 by colouring in the correct number of dienes:



Round numbers to the nearest 10, 100, 1000, 10 000 or 100 000 and any whole number.
(Remember 5 rounds up!)

8a) 4500 rounded to the nearest **thousand** is 5000 (the **hundreds** rounds up).

b) 253 450 to the nearest 10 000 is **250 000** (the **ten-thousand** rounds down).

c) 374 rounded to the nearest 50 is **350** (74 is nearer to **50** than **100**).

Read and Write Numbers in Numerals and Words

9) 344 285 in words is **three hundred and forty-four thousand, two hundred and eighty-five.**

Roman Numerals

10a) Fill in the table to show what each Roman numeral represents:

Roman	Numeral
I	1
V	5
X	10
L	50
C	100
D	500
M	1000

b) CMXLVIII = **948**
CCXIX = **219**
626 = **DCXXVI**
MDCCCLXXI = **1871**

c) Here are 3 years written in Roman Numerals. Order the years from earliest to latest:
MCMXCIX, MMIX, MMXV
1999 2009 2015

Addition and Subtraction

Add and Subtract Mentally

1a) 376 + 3 = **379**

b) 376 + 40 = **416**

c) 376 + 200 = **576**

Mental Methods

2) 15 672 – 3200 = **12 472**

Estimate, Round, Levels of Accuracy and Inverse

Estimate by rounding to check accuracy:

3a) 54318 + 21298 ≈ **54 300** + **21 300** ≈ 75600

b) Inverse: check 7932 – 3457 = 4475, by
4475 + 3457 = 7932
OR
3457 + 4475 = 7932

Multiplication Tables

Multiplication and division facts to 12 × 12.

4) Fill in the missing numbers:

×	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	**3**	4	5	6	**7**	8	9	10	11	12
2	2	4	6	**8**	10	12	**14**	16	18	**20**	22	24
3	**3**	6	9	12	15	**18**	21	24	27	**30**	**33**	36
4	4	8	12	16	20	24	**28**	32	36	40	44	48
5	5	**10**	15	20	**25**	30	35	40	45	50	55	60
6	6	12	**18**	24	30	36	**42**	48	54	60	**66**	72
7	**7**	**14**	21	**28**	**35**	42	**49**	56	**63**	70	77	84
8	8	16	24	**32**	40	**48**	56	64	72	**80**	**88**	96
9	9	**18**	27	36	45	54	**63**	72	81	90	**99**	108
10	10	20	**30**	40	**50**	60	70	**80**	**90**	100	110	120
11	**11**	22	33	44	55	66	**77**	88	99	**110**	**121**	**132**
12	12	24	36	48	60	72	84	96	108	120	132	144

Multiplying and Dividing

5a) Use place value and known facts:
400 × 5 = **2000**, 630 ÷ 7 = **90**

Multiply by 0 and 1 and divide by 1:
285 × 1 = **285**, 285 × 0 = **0**,
285 ÷ 1 = **285**.

b) When multiplying the number gets **greater** and when dividing the number gets **smaller**.

c) The numbers will move in place value by the number of 0s.

45 × 10 = **450**

6.7 × 100 = **670**

902 × 1000 = **902 000**

59 ÷ 10 = **5.9**

4506 ÷ 100 = **45.06**

382 ÷ 1000 = **0.382**

Common Multiples, Factor Pairs, Common Factors and Commutativity

6a) 12 is a common multiple of **6** and **2**, because 12 is a multiple of **6** and a multiple of **2** .
All the factor pairs of 56 are **1** and **56**, **2**, and **28**, **4** and **14**, **7** and **8**.

b) 56 pencils are shared between 4 tables. How many pencils does each table receive? **14**.

c) The common factors of 32 and 56 are **1**, **2**, **4** and **8** because they are factors of both 32 and 56.

d) Commutativity means changing the order of the numbers in a calculation but the answer does not change. What other two ways can this calculation be written so that it gives the same answer?
5 × 9 × 2 = **9** × **5** × **2** = **5** × **2** × **9** = **90**

Prime Numbers

7a) Prime numbers only have 1 and **itself** as factors.

b) Prime factors are factors of a number that are **prime numbers**:

c) The prime factors of 21 are **3** and **7**.

d) The prime factors of 24 are **2** and **3**.

e) Recall the prime numbers to 19:
2, 3, 5, 7, 11, 13, 17, 19.

Square and Cube Numbers

8a) The square numbers are

1,**4, 9, 16, 25, 36, 49, 64, 81, 100, 121, 144, 169, 196**,225…

e.g. $\mathbf{3}^2 = \mathbf{3} \times \mathbf{3} = 9$

$\mathbf{7}^2 = \mathbf{7} \times \mathbf{7} = 49$

b) The cube numbers are
1, **8**, **27**, **64**, 125,…

e.g. $\mathbf{2}^3 = \mathbf{2} \times \mathbf{2} \times \mathbf{2} = 8$

$\mathbf{5}^3 = \mathbf{5} \times \mathbf{5} \times \mathbf{5} = 125$

Order of Operations

BODMAS is a way of remembering the order in which operations are carried out.

9a) Brackets first: 3 × (4 + 5) = **3** × **9** = **27**

b) Order - square or cube:
$4 + 3^2 = \mathbf{4} + \mathbf{9} = \mathbf{13}$

c) Division and Multiplication:
4 + 3 × 2 = **4** + **6** = **10**

Formal Methods

Use a written method to solve the following addition and subtraction calculations:

10a) 72 698 + 61 562 = **134 260**

b) 84 935 + 12 423 = **97 358**

c) 64 812 – 29 364 = **35 448**

Use a written method to multiply up to 4-digit numbers by 1-digit numbers.

d) 27 × 4 = 108

e) 382 × 7 = 2674

f) 2471 × 6 = 14 826

Use a written method to multiply 2-digit numbers by 2-digit numbers.

g) 27 × 14 = **378**

h) 14 × 23 = **322**

Use short division for up to 4-digit numbers divided by one-digit numbers

i) 76 ÷ 4 = **19**

j) 487 ÷ 5 = **97r2**

Use long division for up to 4-digit numbers divided by 2-digit numbers. Express remainders as whole numbers, fractions or decimals.

k) 516 ÷ 15 = **34 r 6**
516 ÷ 15 = **34** $\frac{2}{5}$
516 ÷ 15 = **34.4**

Solve Problems

Multi-step problems

11a) 3549 + 1263 = **4812** adults

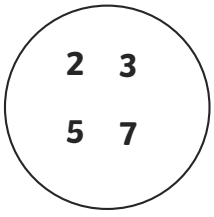
b) 8451 – 4812 = **3639** children

c) 3639 – 946 = **2693** children see the animation

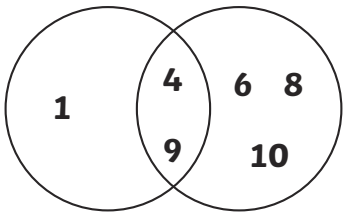
d) 2693 – 946 = **1747** more children see the animation than the adventure film

12a)

Prime Numbers



Square Numbers Composite Numbers



b) Explain why a prime number will never be a square number.
A prime number will never be a square number because a prime number can only be divided by 1 and itself whereas a square number can also be divided by its root.

c) Fill in the missing numbers:
15 × 3 = 45 or 56 ÷ **4** = 14

Word Problems

A teacher has four new boxes of pencils, each with 12 pencils, and a tray with 37 pencils. The teacher shares equally all the pencils between 5 tables. How many pencils does each table receive?

13a) 12 × 4 = **48** new pencils

b) 48 + 37 = **85** pencils

c) 85 ÷ 5 = **17** pencils per table

Solving Problems with Simple Fractions

14) 12 pizzas are cut into quarters. How many quarters of pizza will there be altogether? **48**.

Correspondence Problems

15) Jenna has 2 t-shirts and 4 pairs of shorts. How many possible combinations of t-shirts and shorts does Jenna have? **There are 8 possible combinations.**

Using the Distributive Law

16) Multiplying a number by distributing it into a group of numbers added together. For example:

39 × 7 = 30 × 7 + 9 × 7 = 210 + 63 = 273

Fractions

Tenths

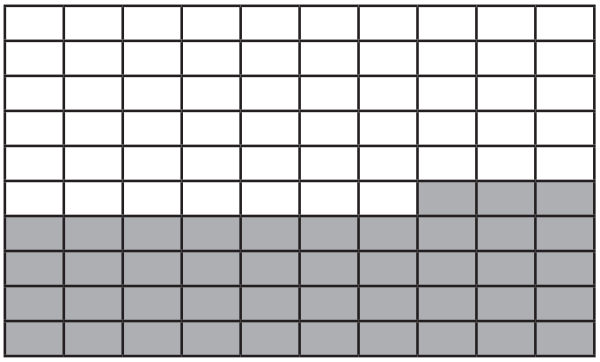
1) Colour in the bar to show what fraction comes next in the sequence:

$\frac{7}{10}$, $\frac{6}{10}$, $\frac{5}{10}$, $\frac{4}{10}$, ...

Hundredths

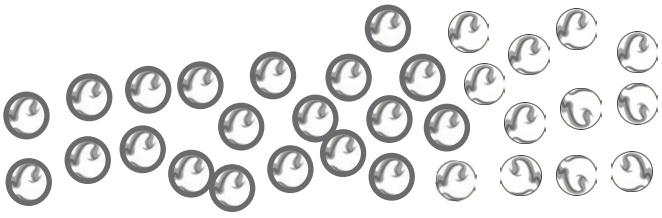
2) Colour in the grid to show what fraction comes next in the sequence:

$\frac{47}{100}$, $\frac{46}{100}$, $\frac{45}{100}$, $\frac{44}{100}$, ...



Fraction of a Set of Marbles

3) Colour in $\frac{5}{8}$ of these marbles:



32 ÷ 8 = **4** 4 × 5 = **20**

Equivalent Fractions

4a) Colour in the bars to represent the equivalent fractions:

$\frac{3}{4}$ = $\frac{6}{8}$ = $\frac{12}{16}$

b) Write 4 fractions that are equivalent to $\frac{3}{4}$ = **$\frac{6}{9}$ $\frac{9}{12}$ $\frac{12}{16}$ $\frac{15}{20}$**

c) Use common factors to simplify fractions:

$\frac{9}{15} = \frac{3}{5}$ 9 and 15 have **3** as a common factor.

Expressing Fractions with the Same Denominator

5) Use common multiples $\frac{4}{5}$ and $\frac{3}{8}$

40 is the smallest common multiple of 5 and 8

$\frac{4}{5}$ becomes **$\frac{32}{40}$** $\frac{3}{8}$ becomes **$\frac{15}{40}$**

Mixed Numbers and Improper Fractions

6a) Change this mixed number into an improper fraction:

$1\frac{2}{3}$ = **$\frac{5}{3}$**

b) Change this improper fraction into a mixed number:

$\frac{14}{3}$ = **$4\frac{2}{3}$**

Add and Subtract Fractions with the Same Denominator and with Denominators that are Multiples, and with Different Denominators and Mixed Numbers

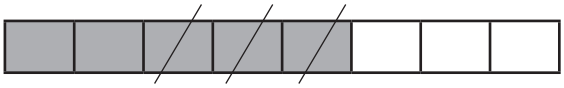
7) Fill in the missing numbers and colour in the bar to represent the fraction.

a)

$\frac{1}{8} + \frac{3}{8} = \frac{4}{8} = \frac{1}{2}$

b)

$\frac{5}{8} - \frac{3}{8} = \frac{2}{8} = \frac{1}{4}$



c) $\frac{1}{4} + \frac{3}{8} = \mathbf{\frac{2}{8}} + \mathbf{\frac{3}{8}} = \mathbf{\frac{5}{8}}$

d) $\frac{4}{5} + \frac{3}{8} = \mathbf{\frac{32}{40}} + \mathbf{\frac{15}{40}} = \mathbf{\frac{47}{40}} = \mathbf{1\ \frac{7}{40}}$

Compare and Order

8a) Arrange these unit fractions from smallest to largest:

$\frac{1}{8}$ $\frac{1}{6}$ $\frac{1}{4}$ $\frac{1}{3}$

b) Use >, < or = to compare these fractions:

$\frac{1}{5}$ **<** $\frac{3}{5}$ $\frac{5}{8}$ **>** $\frac{1}{4}$

Multiply Fractions

9a) Proper fractions: multiply the numerator by the whole number:

$\frac{2}{3} \times 5 = \frac{10}{3} = 3\frac{1}{3}$

b) Mixed numbers: multiply the whole numbers and add the product of the fraction and whole number:

$2\frac{2}{3} \times 3 = 6 + \frac{6}{3} = 6 + 2 = 8$

Divide Fractions

10) Divide proper fractions by whole numbers – multiply the denominator by the whole number:

$\frac{1}{4} \div 2 = \mathbf{\frac{1}{8}}$

Decimal Equivalents

11a) Write the following fractions as decimals:

$\frac{7}{10} = 0.7$ $\frac{43}{100} = 0.43$

$\frac{1}{4} = 0.25$ $\frac{1}{2} = 0.5$ $\frac{3}{4} = 0.75$

b) Write decimals as a fraction:

$0.67 = \frac{67}{100}$

c) Calculate decimal fraction equivalents:

$\frac{3}{8} = 0.375$ because $3 \div 8 = 0.375$

Decimal Place Value

12) 0.492 = **zero ones + four tenths + nine hundredths + two thousandths**

Multiplication and Division

13a) $0.2 \times 10 =$ **2**
$2 \div 100 =$ **0.02**
$0.25 \times 100 =$ **25**
$25 \div 1000 =$ **0.025**

b) Multiply decimal numbers by whole numbers.

$0.04 \times 7 =$ **0.28**

$0.2 \times 45 =$ **9**

Rounding Decimals

14a) 0.5 rounds to 1 because the 5 rounds up

b) 2.35 rounds to 2 because the 3 rounds down (ignoring the 5)

When rounded to one-decimal place:

c) 0.05 rounds to 0.1 because the 5 rounds up.

d) 2.42 rounds to **2.4**

Read, Write, Order and Compare Decimals

15a) 0.45 = zero ones, four tenths and five hundredths

b) Use >, < or = to compare these decimals
0.45 **<** 0.5 0.561 **>** 0.516

Percentages

16a) % means out of **100**.

b) 50% = $\frac{50}{100}$ = $\frac{1}{2}$ 41% = $\frac{41}{100}$

Solve Problems

Fractions

Adil wants to share his savings with his friends. He has £120. He gives $\frac{1}{4}$ to his friend Tommy and $\frac{3}{10}$ to Barney.

17a) How much money will they both receive? **Tommy - £30, Barney - £36**

b) How much money will Adil be left with? **£54**

Measure and Money Problems

18a) Ellie buys a new shirt for £4.75 and a pair of trousers for £3.50 in a sale. She pays with a £10 note. What change will she receive? **£1.75**

b) A bag of potatoes weigh 2.45kg. How much will 4 bags weigh? **9.80kg**

Decimal Problems to 3 Decimal Places

19a) A packet of sugar weighs 1.348kg. $\frac{3}{4}$ kg is used to bake some cakes.

How much will the packet weigh now?
1.348kg – 0.75kg = 0.598kg

Knowing Percentage and Decimal Equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$, $\frac{*}{10}$, $\frac{*}{25}$

20) Order the following from smallest to largest:

25%, 0.3, $\frac{2}{5}$

Ratio and Proportion

Use Multiplication and Division Facts

1) 4 children share 6 pizzas. If 2 more children join the group and each child is to have the same amount of pizza, how many more pizzas are needed? **3 more pizzas**

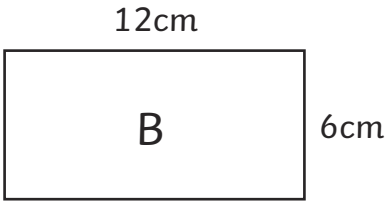
Percentages

2) Circle which is greater:

(15% of 2 litres) or 50% of 500ml

Scaled Shapes

3) The length and width of rectangle A are increased by a scale factor of 3 to make rectangle B. What are the new dimensions of rectangle B?



Use Fractions and Multiples

4) A child has read 50 pages of a book and has $\frac{3}{5}$ to read.
How many pages are there left to read?

a) $\frac{2}{5}$ of the book has been read which is **50** pages

b) $\frac{1}{5}$ of the book is **25** pages

c) $\frac{3}{5}$ of the book is **75** pages.
There are **75** pages left to read.

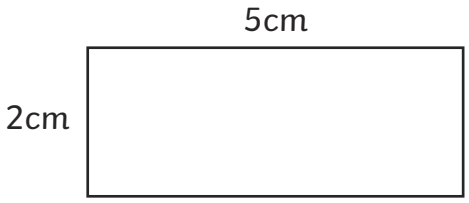
Algebra

Formulae

1a) 2s + 4 = t, if s = 5, what is t?

t = 5 × 2 + 4 = 14

b) What is the area and perimeter of this rectangle?
Perimeter = 14cm
Area = 10cm²



Express missing number problems algebraically:

2a) If a number (g) is 12 more than a number (h): **g = h + 12 or h = g – 12**

a) A locksmith charges £15 callout and £20 per hour for any work. What formulae would calculate his charge for h number of hours? **20h + 15**

Sequences

This linear sequence starts with 3 and each step is 4: 3, 7, 11, 15...

3) The 1st term is 4 × 1 – 1 = 3, the 2nd term is 4 × 2 – 1 = 7, the 3rd is 4 × 3 – 1 = 11...

therefore the nth term is **4n – 1**

Equations

4) Find possible pairs of numbers for a and b in 3a + b = 12.
Some possible answers: a = 1, b = 9; a = 2, b = 6; a = 3, b = 3

Variables

5) The total of two numbers is 15. Both numbers are between 5 and 10.
Find all the possible combinations.
6 + 9 = 15, 7 + 8 = 15

Measurement

Estimate, Measure, Compare, Add and Subtract

Measure and draw lines using a ruler in centimetres (cm) or millimetres (mm).

Lengths (mm/cm/m)

1a) Measure this line in cm. **9.5cm**

b) Draw a line that is 12.5mm long.

Mass (g/kg)

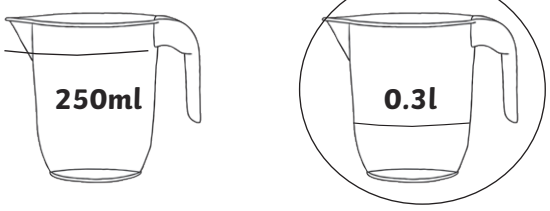
Measure the mass of objects using different scales.

4a) 3 apples weigh 435g. One is eaten, and the 2 remaining apples weigh 285g.

b) What is the mass of the eaten apple?
435g – 285g = 150g

Capacity (ml/l)

5) Circle which jug has more water.



Convert between units

6a) **Length:** Length: 1 km = **1000m**, 1m = **100cm** or **1000mm**. 1cm = **10mm**

b) **Mass:** 1kg =**1000g**

c) **Capacity/ Volume:** 1l = **1000ml**

d) **Time:** 1 year = **365** days (leap year **366** days),
1 week = **7** days,
1 day = **24** hours,
1 hour = **60** minutes,
1 minute =**60** seconds.

e) **30** days hath September,
April, June and November.
All the rest have **31**
Excepting February alone
Which only has but **28** days clear
And **29** in each leap year.

Convert between metric and imperial units

7a) 1 inch ≈ **2.5cm**

5 miles ≈ **8km**

1kg ≈ **2.2lb (pounds)**

1 litre = **1.75 pints**

b) A road sign says Sheffield 45 miles. How many kilometres is it to Sheffield? **72km**

Perimeter, Area and Volume

The perimeter is the measurement around the edge of a shape.

8a) The sides of this rectangle are 8cm and 3cm, so the perimeter is **22cm**.

b) Measure and calculate the perimeter of rectilinear shapes (including squares). **Perimeter = 42cm**

Area

9a) Find the area of rectilinear shapes by counting squares. **Area = 66cm²**

b) Calculate the area of rectangles: multiply the length of two adjacent sides.

Area = 8cm × 3cm = **24cm²**

c) Estimate the area of irregular shapes by counting the whole squares and the squares with more than half included in the shape: **Whole squares and squares more than half included in the shape = 20cm².**

d) Find the area and perimeter of these rectangles. What do you notice?

The area of both is 12cm², but the perimeter of A is 14cm and B is 16cm, so they are different.

e) The area of a triangle is **half** of the base (b) × the height (h) or $\frac{1}{2}$ bh

f) The area of a parallelogram is the **base** × the height (h) or **bh**.

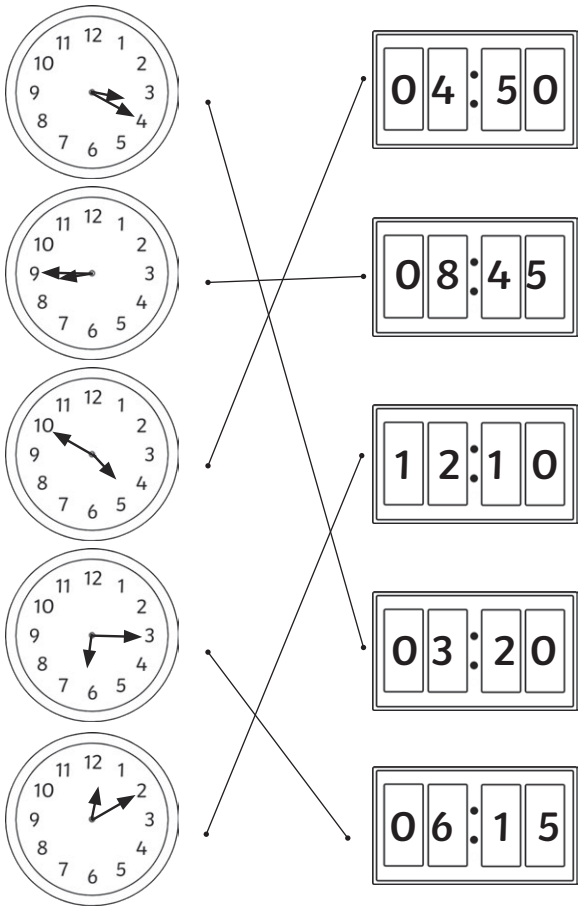
Money

Add and subtract giving change.

10) Jude buys a bag of apples for £1.25 and a bag of oranges for £2.15. He pays with a £5 note. How much change will he be given? **£1.60 change**

Time

11a) Match the analogue clock to the digital clock that is showing the same time:



b) A film lasts 136 minutes. How long is the film in hours and minutes?

2 hours and 16 minutes

c) Convert the following times from 12-hour to 24-hour clock and vice versa:

3.45 p.m. = 15:45

11.20 a.m. = 11:20

15:55 = 3.55 p.m.

6:10 = 6:10 a.m.

Solve Problems

12a) 2 equal bottles of water contain 500ml of drink. How many litres will 7 bottles hold?

2 bottles hold 500ml, 1 bottle will hold 250ml = 0.25l 7 bottles will hold 0.25l × 7 = 1.75l

b) A 6.5kg bag of soil is divided into 20 pots equally. Each pot needs 0.5kg. How much more does each pot need?

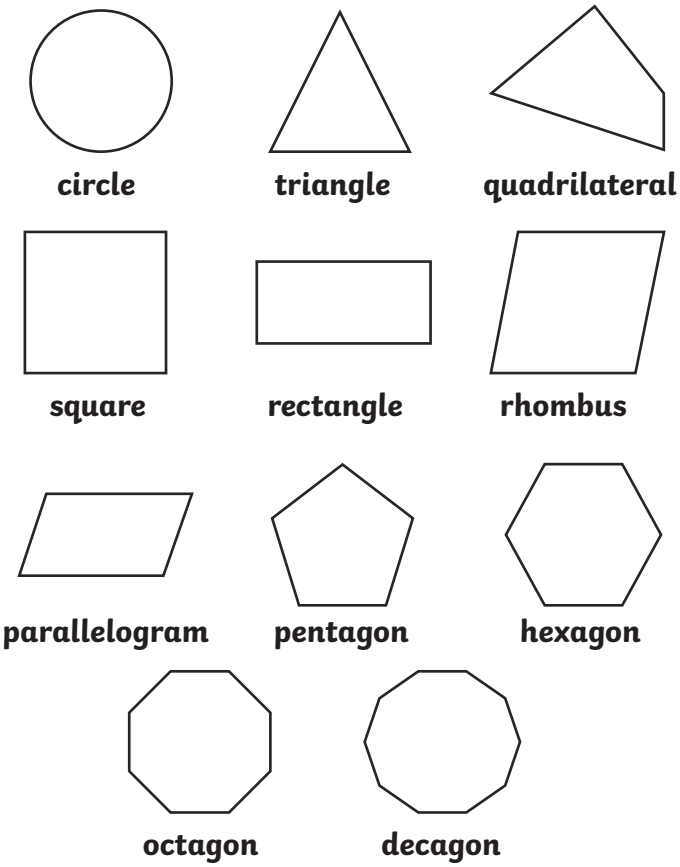
6.5 ÷ 20 = 0.325

0.5 – 0.325 = 0.175kg is needed by each pot

Geometry – Shape

2D Shapes

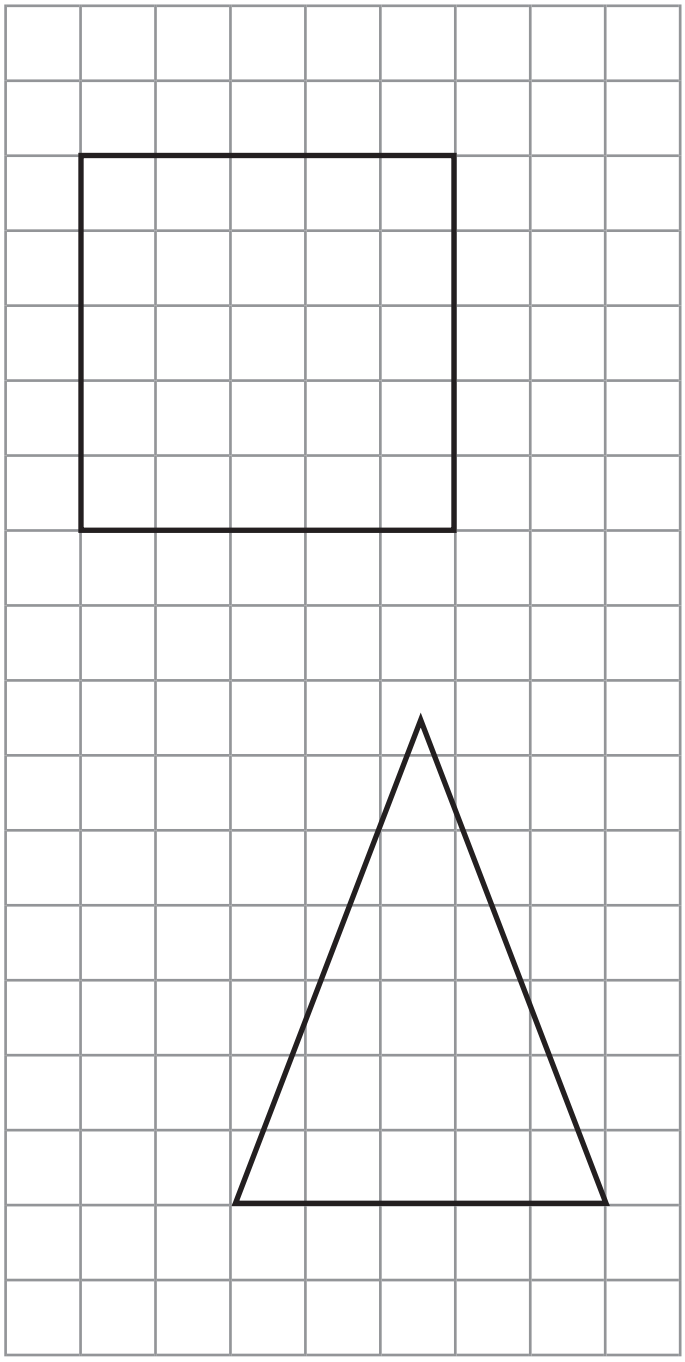
1a) Main shapes: circle, triangle, quadrilateral, square, rectangle, rhombus, parallelogram, pentagon, hexagon, octagon, decagon. Identify each one:



Draw 2D shapes using given dimensionsand angles.

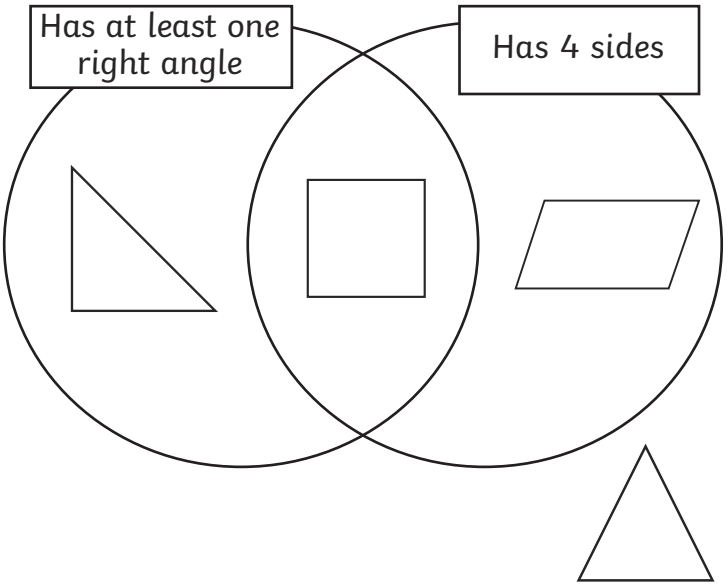
b) Draw a square with sides 5cm.

c) Draw an isosceles triangle with one side of 5cm and 2 sides of 7cm.



Compare and classify shapes

2a) Draw the shapes that belong within the venn diagram:



Triangles

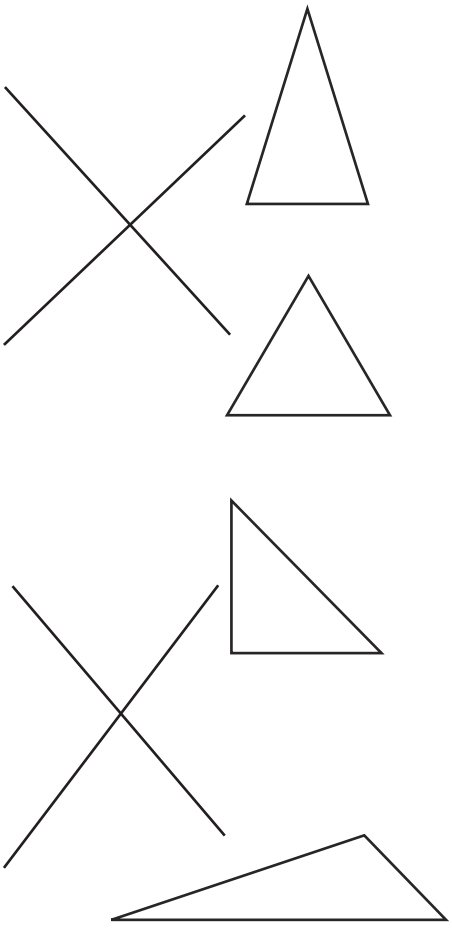
Draw a line to the triangle being described:

b) Equilateral (all sides and angles equal)

c) Isosceles (2 sides and angles equal)

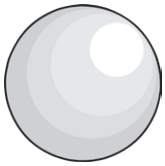
d) Scalene (no sides and angles equal)

e) Right-angled triangle (one angle a right angle)

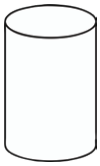


3D Shapes

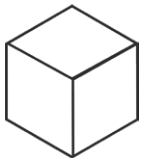
3a) Main shapes: sphere, cylinder, cube, cuboid, tetrahedron, square-based pyramid, triangular prism, pentagonal prism, hexagonal prism. Identify each one:



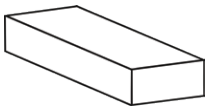
sphere



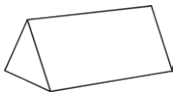
cylinder



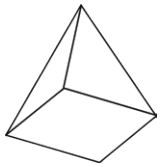
cube



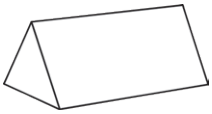
cuboid



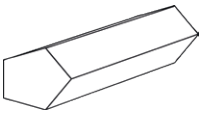
tetrahedron



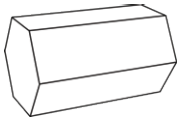
square-based pyramid



triangular prism



pentagonal prism

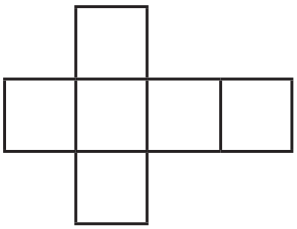


hexagonal prism

Recognise, describe and build simple 3D shapes, including making nets.

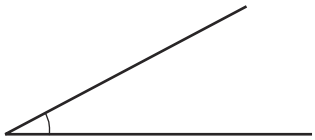
b) What shape is made from this net?

Cube

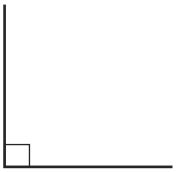


Angles

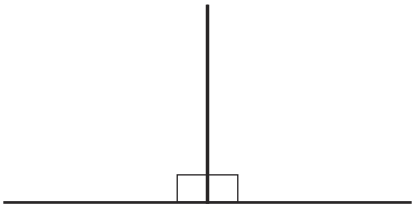
4a) An angle measures a **turn**



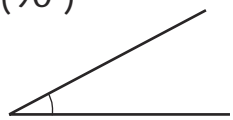
b) A **right** angle is the corner of a square.



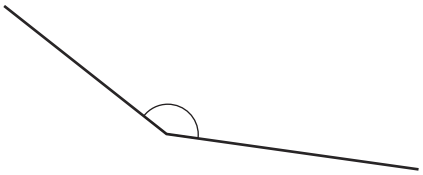
c) 2 right angles make a **straight** line



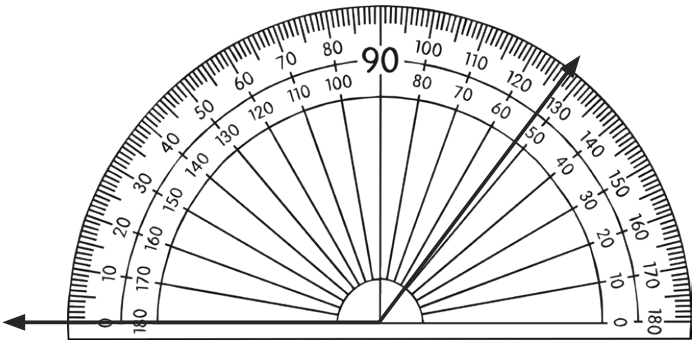
d) An **acute** angle is less than a right angle (90°)



e) An **obtuse** angle is between a right angle and a straight line.



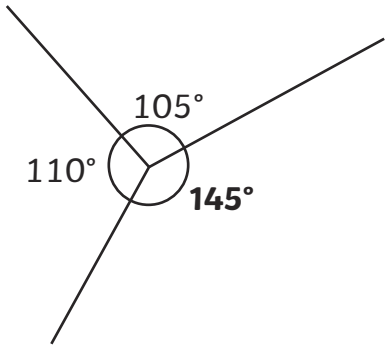
Draw and Measure Angles



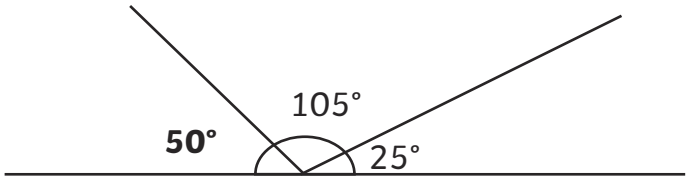
5a) The angle is: **127°**

The angles at a point and whole turn total 360° (four right angles).

b) Fill in the missing numbers:



c) Angles at a point on a line total 180°.



d) One right angle = **90°**

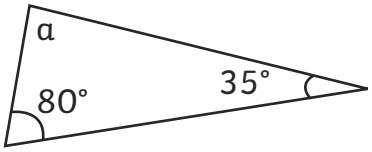
e) Two right angles = **180°**

f) Three right angles = **270°**

Angles in a triangle add up to 180°.

6a) What is the size of angle a?

65°



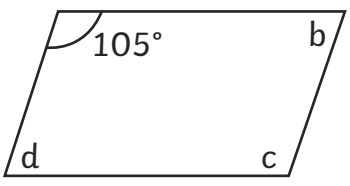
Angles in a quadrilateral add up to 360°.

b) What is the size of angle b, c and d?

b = 75°

c = 105°

d = 75°



Lines

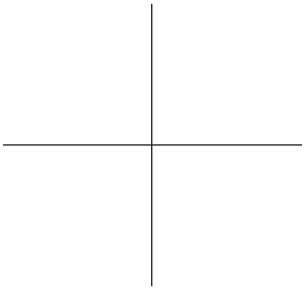
7) Draw the following lines:

a) Horizontal

b) Vertical

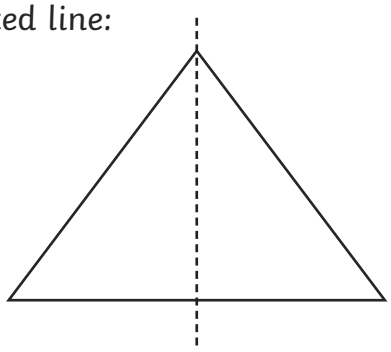
c) Parallel Lines

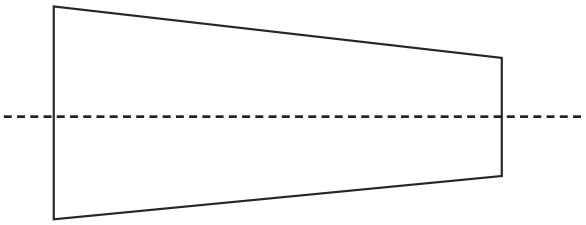
d) Perpendicular lines (at a right angle)



Symmetry

8) Identify the lines of symmetry with a dotted line:





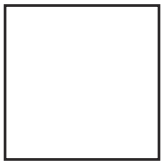
9) Complete two examples of a symmetrical figure:

Answers will vary

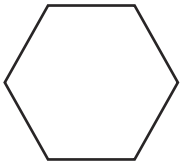
Regular and Irregular Polygons

Regular polygons have equal sides and equal angles.

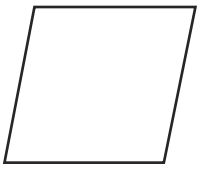
10a) Identify the following:



square

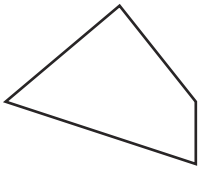


regular hexagon



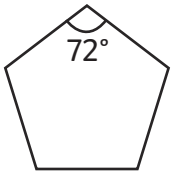
rhombus

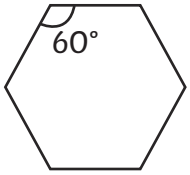
rectangle

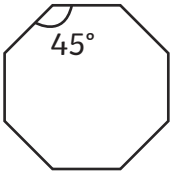


irregular quadrilateral

b) Explain why these shapes are regular polygons.



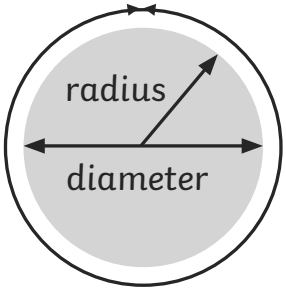




These shapes are regular polygons because their angles and sides are all equal.

Circles

11a) Identify the main parts of a circle:



circumference

b) The **circumference** is the distance around the perimeter of the circle.

c) The **radius** is the distance from the centre to the circumference.

d) The **diameter** is the distance from the circumference to the circumference on the other side through the centre of the circle.

e) The **diameter** is double the radius.

Geometry – Position and Direction

Coordinates

Coordinates in all four quadrants.

1a) The coordinates are:

A (4, 7),

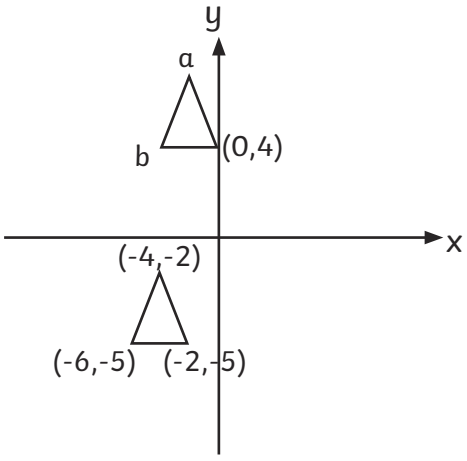
B (-6, 2)

C (-3, -7)

Some coordinates grids are drawn without squares.

b) Work out the coordinates of points a and b.

c) Compare the coordinates of the 2 triangles to find the answer.



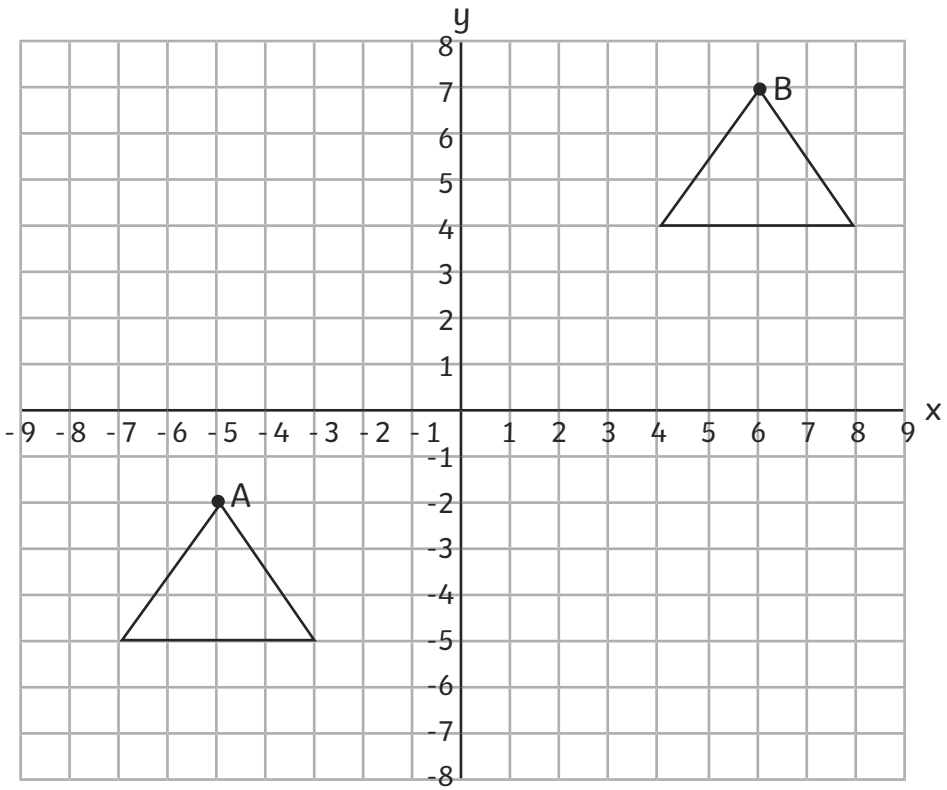
a = (-2, 7)

b = (-4, 4)

Translation

Translate shapes on a coordinates grid.

2) Translate this triangle so point A translates to point B.

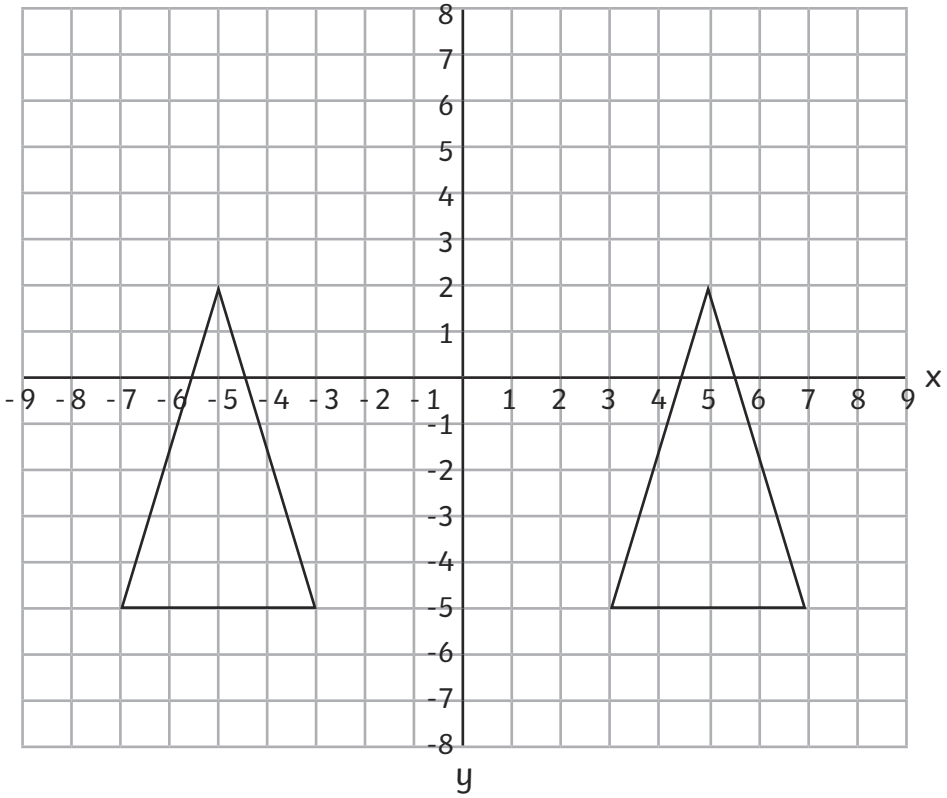


Translations can also be on blank grids as in the coordinates section above.

Reflection

Reflect shapes on a coordinates grid.

3a) Reflect this triangle about the y-axis.



Statistics

Pictograms

1) How many children were asked to vote for their favourite colour? **35**

Bar Charts

2a) How many more children chose cheese and onion as their favourite crisps than ready salted? **10**

b) How many children are 1m or taller? **27**

Tables

3) Which chocolate bar is the most popular? **Tiger**

Time Graphs

4) How many school meals were served during the week? **Accept answers between 122 and 127.**

Line Graphs

5a) At which time of day was the shadow at its shortest? **12:00**

b) How long was the shadow at 15:00? **55 (accept 2cm either side)**

Timetables

6) Which train takes the least time to get from London to Hull? **B**

Pie Charts

7) Estimate how many children travelled by bus.

25% of the children travelled by bus and bicycle, which is 5 children. Estimate that bicycle represents 1 child and bus represents 4.

Mean

8a) The mean of a set of data is equivalent to sharing the data out **equally.**

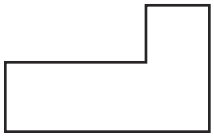
b) If 4 test scores are 3, 5, 6, 8, the mean is found by adding the data
(3 + 5 + 6 + 8 = **24**)
and then sharing between the 4 scores by dividing by 4 (**24** ÷ 4 = **6**).
Mean = **6**

c) What is the mean of 15, 17, 20, 24, 24? **20**

Important Vocabulary

Some vocabulary is also described within the booklet. Fill in the missing information:

Vocabulary	**Meaning**
2D shapes	Flat shapes with no thickness. In theory a 2D shape cannot be picked up, but in practice shapes made of paper are counted as 2D. (A list of shapes is included in the section on shape.)
3D shapes	A shape with 3 dimensions that can be picked up. (A list of shapes is included in the section on shape.)
Algebra	**Letters or symbols used in the place of numbers.**
Analogue	**A clock face with hands.**
Area	The amount of space taken up by a shape.
Calculation	The working out of an answer using addition, subtraction, multiplication or division.
Capacity	**How much a container holds.**
Commutativity	The answer is the same no matter which way the calculation is completed: e.g. 2 + 4 = 4 + 2 or 2 × 4 = 4 × 2.
Composite Number	A number that has more than 2 factors. (1 is not a composite number because it only has 1 factor.)
Cube number	The result of multiplying a whole number by itself twice: e.g. $2 \times 2 \times 2 = 8$
Denominator	**The bottom part of a fraction.**
Digit	A single symbol used to make a numeral: 7 (All numbers are made from the ten digits 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 0.)
Digital	A clock using digits to tell the time.
Discrete	**A whole number of a set of objects.**
Equation	A statement where the value of each mathematical expression is equal: e.g. 3 + 4 = 7
Equivalent fraction	A fraction which has the same value but is divided into a different number of parts: e.g. $\frac{1}{2} = \frac{2}{4}$
Factor	A factor of a number is a number into which the number can be divided with no remainders: e.g. the factors of 8 are 1, 2, 4, and 8.
Factor pairs	Factor pairs are 2 factors that are multiplied together to make the number: e.g. the factor pairs of 8 are 1 and 8, 2 and 4.
Fraction	A number expressed as the number of parts into which the whole has been divided: e.g $\frac{3}{4}$ represents 3 parts out of 4.

Improper fraction	A fraction where the numerator is larger than the denominator: e.g $\frac{9}{2}$
Integer	A whole number with no parts: e.g. 5, 18, 109. A whole number with no fraction or decimal part: e.g. 6 or 57.
Inverse	An inverse operation is the opposite or reverse of an operation: e.g. the inverse of 6 – 4 = 2 is 2 + 4 = 6 or the inverse of 6 ÷ 3 = 2 is 2 × 3 = 6.
Mass	Often known as weight – how much matter is in an object.
Mixed number	A whole number and a proper fraction: e.g. $4\frac{1}{2}$
Numeral	A symbol, symbols, word or words that stand for a number: 37 or thirty-seven.
Numerator	The top part of a fraction.
Perimeter	**The measurement around an object.**
Place value	The value of each digit in any number: In 27 the 2 represents 2 tens.
Polygon	A 2D shape with any number of sides.
Prime factor	A factor which is a prime number: e.g. 3 is a prime factor of 12.
Prime Number	**A number that only has 2 factors: 1 and itself. (1 is not a prime number because it only has 1 factor.)**
Proper fraction	A fraction where the numerator is smaller than the denominator: e.g $\frac{1}{2}$
Quadrant	A quarter of the space represented by coordinates, bordered by the x and y axes.
Quadrilateral	Any four sided shape.
Rectilinear	A shape with all angles as right angles (the right angle can be inside or outside the shape). 
Scale	The mathematical relationship between different measurements or number of objects.
Square number	The result of multiplying a whole number by itself: e.g. 2 × 2 = 4
The Distributive Law	Multiplying 2 numbers by a number and adding, gives the same answer as multiplying the sum of the 2 numbers by the other number: e.g. 4 × (3 + 2) = 4 × 3 + 4 × 2.
Translation	The movement of a shape without rotation or reflection.
Volume	**The amount of space taken up by an object.**
Weight	Mass is measured by how much something weighs, but this can change in different locations.