SATs Survival Year 2
Parents’ Practice and Revision
Maths - Reasoning

Answers
It is also fine to outline individual numbers.

26 counters

20

25
4
50  3

5
10  20

12  14  16  18

6
Sort the parcels from **lightest** to **heaviest**.

lightest  B  D  C  A  heaviest
How many pencils does Molly have?

I have 8 pencils.
I have 4 more pencils than Jack.

Match each coin to the correct box. One has been done for you.

<table>
<thead>
<tr>
<th>Less Than</th>
<th>More Than</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Less Than Coin]</td>
<td>![More Than Coin]</td>
</tr>
</tbody>
</table>

12 pencils
9

On these cards, the word should match the number. One of these cards is wrong. Draw a cross on the card that is wrong.

13 thirteen
18 **x** eighty
29 twenty-nine
31 thirty-one

10

Anisha makes a tally chart of her toys.

<table>
<thead>
<tr>
<th>Toys In My Box</th>
<th>Tally</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Car" /></td>
<td><img src="image" alt="Tally" /></td>
</tr>
<tr>
<td><img src="image" alt="Building Blocks" /></td>
<td><img src="image" alt="Tally" /></td>
</tr>
<tr>
<td><img src="image" alt="Teddy Bear" /></td>
<td><img src="image" alt="Tally" /></td>
</tr>
<tr>
<td><img src="image" alt="Doll" /></td>
<td><img src="image" alt="Tally" /></td>
</tr>
</tbody>
</table>

Tick one box below that shows all of Anisha’s toys.
11 There are 20 cakes. 8 cakes are eaten. How many cakes are left?

12 Tick the two sentences that are correct.

- A circle has one side. ✓
- A circle has straight sides. ❌
- A circle has no corners. ✓
- A circle has three sides. ❌

13 Write two numbers to make this calculation correct.

\[ \square + \square = 17 \]

Any numbers acceptable if they total 17.

Now, write three numbers to make this calculation correct.

\[ \square + \square + \square = 17 \]

Any numbers acceptable if they total 17.
14

Abdul has some toy dinosaurs. He gives half of them to Max. He has three toy dinosaurs left.
How many toy dinosaurs did Abdul start with?

6 toy dinosaurs

15

Anisha has these coins in her piggy bank.
How much money does she have?

88p

16

Write the correct number in each box.

25

37/38
17 Which shape has 3 faces?
Write the letter.

![Shapes]

Which shape has 3 faces?
Write the letter: E

18 Callum and Ahmed share these biscuits equally.
How many biscuits do they each get?

![Biscuits]

Callum and Ahmed share these biscuits equally. How many biscuits do they each get?

25 biscuits

19 Mrs Jones needs 25 paintbrushes for her class.
There are 5 paintbrushes in each box.
How many boxes of paintbrushes does Mrs Jones need altogether?

![Paintbrushes]

Mrs Jones needs 25 paintbrushes for her class. How many boxes of paintbrushes does Mrs Jones need altogether?

5 boxes
Molly has 25 beads altogether. She has 18 beads in one hand. How many beads does she have in the other hand?

7 beads

21 Draw lines to match the shapes to their names.

- cone
- cylinder
- cuboid
- cube
Look at these four fruits:

- Apple: 30p
- Grapes: 40p
- Strawberries: 20p
- Banana: 50p

Anisha buys **three different fruits**.
She spends exactly **£1**.
Tick the **three** fruits that she buys.

This arrow is rotated clockwise.
How much is the arrow rotated? Circle your answer.

- quarter turn
- half turn
- three-quarter turn
- full turn
24 How much water is in the jug?

250 millilitres

25 Match the calculations that have the same answer. One is done for you.

- 30 + 3
- 60 + 3
- 80 + 3
- 70 + 3

- 30 + 33
- 60 + 23
- 20 + 13

- 40 + 33
A 2-digit number is made up of the ‘tens’ digit and the ‘ones’ digit.

The number 45 has 4 tens and 5 ones. What we need to understand is that the 4 tens equal 40, and the 5 ones equal 5.

We can also write this as an addition number sentence.

\[ 45 = 40 + 5 \]

Complete this table.

<table>
<thead>
<tr>
<th>Number</th>
<th>Numbers of ‘Tens’</th>
<th>Number of ‘Ones’</th>
<th>Number Sentence</th>
</tr>
</thead>
<tbody>
<tr>
<td>32</td>
<td>3</td>
<td>2</td>
<td>32 = 30 + 2</td>
</tr>
<tr>
<td>96</td>
<td>9</td>
<td>6</td>
<td>96 = 90 + 6</td>
</tr>
<tr>
<td>12</td>
<td>1</td>
<td>2</td>
<td>12 = 10 + 2</td>
</tr>
<tr>
<td>80</td>
<td>8</td>
<td>0</td>
<td>80 = 80 + 0</td>
</tr>
<tr>
<td>55</td>
<td>5</td>
<td>5</td>
<td>55 = 50 + 5</td>
</tr>
<tr>
<td>7</td>
<td>0</td>
<td>7</td>
<td>7 = 0 + 7</td>
</tr>
</tbody>
</table>
Complete these number sentences. The first one has been done for you.

30 + 5 = 20 + 15

40 + 6 = 30 + 16

60 + 1 = 40 + 21

90 + 2 = 50 + 42

20 + 7 = 10 + 17

50 + 8 = 30 + 28

70 + 4 = 20 + 54

Now, match the sums that have the same answer.
Words and Figures

Make sure you know how to write the numbers from 1 to 100 in words as well. Learn the ‘tens’ numbers and the ‘teens’ numbers, and then look for patterns when you add the numbers 1 to 9 to the ‘tens’ numbers.

Practise writing these numbers as numerals and words.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>one</td>
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<td>2</td>
<td>two</td>
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<td>3</td>
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<td>10</td>
<td>ten</td>
</tr>
<tr>
<td>11</td>
<td>eleven</td>
</tr>
<tr>
<td>12</td>
<td>twelve</td>
</tr>
<tr>
<td>13</td>
<td>thirteen</td>
</tr>
<tr>
<td>14</td>
<td>fourteen</td>
</tr>
<tr>
<td>15</td>
<td>fifteen</td>
</tr>
<tr>
<td>16</td>
<td>sixteen</td>
</tr>
<tr>
<td>17</td>
<td>seventeen</td>
</tr>
<tr>
<td>18</td>
<td>eighteen</td>
</tr>
<tr>
<td>19</td>
<td>nineteen</td>
</tr>
<tr>
<td>20</td>
<td>twenty</td>
</tr>
<tr>
<td>30</td>
<td>thirty</td>
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<tr>
<td>40</td>
<td>forty</td>
</tr>
<tr>
<td>50</td>
<td>fifty</td>
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<tr>
<td>60</td>
<td>sixty</td>
</tr>
<tr>
<td>70</td>
<td>seventy</td>
</tr>
<tr>
<td>80</td>
<td>eighty</td>
</tr>
<tr>
<td>90</td>
<td>ninety</td>
</tr>
<tr>
<td>100</td>
<td>one hundred</td>
</tr>
</tbody>
</table>
Match these numbers to their names.

56  ninety-nine
43  forty-three
70  fifty-six
21  eighty-one
99  seventy
81  twenty-one

Two of these number cards are wrong. Which ones?

50  fifteen
13  thirteen
21  twenty-one
96  sixty-nine
Ordering Numbers and Reading Scales

Looking at a scale or number line helps us to understand how to order numbers. Knowing the value of the ‘tens’ and ‘ones’ in 2-digit numbers helps us see whether a number is bigger or smaller than another one, and this helps us to order them.

Put these numbers in order from smallest to largest.

- 43, 56, 21, 8, 99, 12, 34
- 8, 12, 21, 34, 43, 56, 99
- 29, 19, 39, 9, 99, 79, 59
- 9, 19, 29, 39, 59, 79, 99
- 23, 26, 21, 28, 29, 22, 24
- 21, 22, 23, 24, 26, 28, 29

Put these numbers in order from largest to smallest.

- 73, 16, 91, 22, 89, 52, 4
- 91, 89, 73, 52, 22, 16, 4
- 16, 36, 96, 6, 76, 26, 46
- 96, 76, 46, 36, 26, 16, 6
- 64, 65, 60, 67, 68, 63, 61
- 68, 67, 65, 64, 63, 61, 60
If you are asked to put numbers onto a number line, remember to look at the numbers at the start and finish of the line to help you understand what the number line is showing. For example, if you were asked to put ‘15’ on these number lines, where would you put it?

Sometimes the scales or number lines have divisions, which may not have numbers on them. What numbers do you think would go on the divisions here?
Sometimes you might be asked to put numbers on a number line. Can you put these numbers in order on the number lines?

3, 7, 1, 6, 4, 9

20, 49, 1, 10, 35, 43

You might be asked to say which number you think is being shown on a number line. This is where looking at the numbers and divisions will really help you.
What numbers are being shown on these number lines? (Think about what the mark half way between each number is showing you).

- Top left: 15, 22/23
- Top right: 25, 90-95
- Bottom left: 125, 250
- Bottom right: 100, 200, 300
Greater Than and Less Than

Put the correct sign in the boxes.

\[
\begin{align*}
25 & < 32 \\
41 & > 14 \\
99 & > 45 \\
14 & < 35 \\
16 & > \square \\
30 & > \square \\
\square & < 99 \\
54 & > \square
\end{align*}
\]

Any number suitable if it makes the equation work.

Try these. Remember to solve the calculation on each side of the box before you choose the symbol.

\[
\begin{align*}
3 + 5 & < 4 + 6 \\
21 + 5 & = 20 + 6 \\
7 + 8 & > 9 + 3 \\
30 + 40 & < 20 + 60 \\
4 + 3 & < 4 \times 3 \\
5 + 5 + 5 & = 5 \times 3
\end{align*}
\]
You can also solve problems using the ‘<’, ‘>’ and ‘=’ signs.

The vet has come to weigh the animals at the zoo.
Here are the weights he has written down.

<table>
<thead>
<tr>
<th>Animal</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>lion</td>
<td>80kg</td>
</tr>
<tr>
<td>tiger</td>
<td>95kg</td>
</tr>
<tr>
<td>chimpanzee</td>
<td>50kg</td>
</tr>
<tr>
<td>red panda</td>
<td>45kg</td>
</tr>
</tbody>
</table>

Fill in the boxes with <, > or =.

\[
\text{lion} \, < \, \text{tiger} \\
\text{chimpanzee} \, > \, \text{red panda} \\
\text{tiger} \, = \, \text{chimpanzee} + \text{red panda}
\]
Here is the price of some sweets at the shop:

- *Yummy Gummies* 20p
- *Whizz Poppers* 15p
- *Toffee Chunks* 5p
- *Chewy Chocs* 8p

Fill in the boxes with <, > or =.

- Chewy Chocs > Toffee Chunks
- Yummy Gummies > Chewy Chocs

Fill in the boxes.

- Chewy Chocs < Whizz Poppers or Yummy Gummies
- Yummy Gummies = Whizz Poppers + Toffee Chunks
Addition Problems

There are 7 fish in the school fish tank. Mrs Smith goes to the pet store and buys 7 more. How many fish are there now?

$$7 + 7 = 14 \text{ fish}$$

Harry says, ‘I have eaten 4 sweets.’ Abdul says, ‘I have eaten 5 more than you.’ How many sweets has Abdul eaten?

$$5 + 4 = 9 \text{ sweets}$$

Here is a chart showing the number of pencils in a pot.

<table>
<thead>
<tr>
<th>red</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>blue</td>
<td>9</td>
</tr>
<tr>
<td>green</td>
<td>3</td>
</tr>
</tbody>
</table>

How many red and blue pencils are there altogether?

$$5 + 9 = 14 \text{ red and blue pencils}$$

How many red and green pencils are there altogether?

$$5 + 3 = 8 \text{ red and green pencils}$$

What is the total number of pencils in the pot?

$$5 + 9 + 3 = 17 \text{ pencils altogether}$$
Subtraction Problems
There are 18 butterflies on a bush. 7 fly away. How many are left?

18 – 7 = 11 butterflies

There are 25 children in the classroom. 10 children go to see the school nurse. How many children are left in the classroom?

25 – 10 = 15 children

Amy and Sunita are building towers from bricks. Amy’s tower is 20cm tall. Sunita’s tower is 25cm tall. How much shorter is Amy’s tower?

25 – 20 = 5cm shorter

Green Class are measuring the temperature in their classroom over a whole day. They find that the lowest temperature was 8°C and the highest was 14°C. What is the difference between the two temperatures?

14 – 8 = 6°C
Counting on in Tens
Count on in 10s from these numbers.

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>14</td>
<td>24</td>
<td>34</td>
<td>44</td>
<td>54</td>
</tr>
<tr>
<td>35</td>
<td>45</td>
<td>55</td>
<td>65</td>
<td>75</td>
<td>85</td>
</tr>
<tr>
<td>1</td>
<td>11</td>
<td>21</td>
<td>31</td>
<td>41</td>
<td>51</td>
</tr>
</tbody>
</table>

Try these calculations. Solve them by counting on in 10s.

67 + 10 = 77

54 + 10 + 10 = 74

20 + 10 + 10 + 10 = 50

Now, think about how many tens you need to count on.

35 + 20 = 55

18 + 30 = 48
Counting Back in Tens
Count back in 10s from these numbers.

<table>
<thead>
<tr>
<th>82</th>
<th>72</th>
<th>62</th>
<th>52</th>
<th>42</th>
<th>32</th>
</tr>
</thead>
<tbody>
<tr>
<td>60</td>
<td>50</td>
<td>40</td>
<td>30</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td>57</td>
<td>47</td>
<td>37</td>
<td>27</td>
<td>17</td>
<td>7</td>
</tr>
</tbody>
</table>

Now, try these calculations. Solve them by counting back in 10s.

34 - 10 = 24

42 – 10 – 10 = 22

99 – 10 – 10 – 10 – 10 = 59

Now, think about how many tens you need to count back.

78 - 30 = 48

48 – 40 = 8
Now, let’s try some word problems. Remember to underline the important information before you start.

There are 25 children in Red Class and 23 children in Green Class. How many children are there altogether?

\[ 25 + 23 = 48 \text{ children} \]

There are 55 children playing football on the playground. 14 of them are called in for lunch. How many children are left?

\[ 55 - 14 = 41 \text{ children} \]

Ahmed reads 16 pages of his new book. There are 25 pages left to read. How many pages does the book have altogether?

\[ 16 + 25 = 41 \text{ pages} \]

Mrs Smith has a box of 35 new pencils. She gives out 18 of them to her class. How many pencils are left?

\[ 35 - 18 = 17 \text{ pencils} \]
First, let’s recap the value of all our different coins. Draw lines to join these coins to their values.
How much money is in these piggy banks?

37p

36p

77p

91p
There are some cakes for sale at the summer fair.

- fairy cake: 10p
- flapjack: 20p
- chocolate cake: 25p
- cookie: 30p

Jack spends exactly 50p on cakes.
Tick the box that shows the cakes he bought.

Jack only has 5p pieces in his pocket. He says, ‘I will not be able to pay exactly with 5p pieces.’ Is he right? Explain how you know.

No, he is not right because he needs to pay 50p and 50 is divisible by 5 (in the 5x table) so he can pay with 5p pieces. He will need 10 of them because $10 \times 5 = 50$. 


Here is the fruit on sale at the shop today:

- banana: 22p
- apple: 34p
- pear: 31p
- grapes: 42p

Show the change you would receive if you bought each piece of fruit and paid with a 50p piece.

<table>
<thead>
<tr>
<th>Fruit</th>
<th>Price</th>
<th>Change from 50p</th>
</tr>
</thead>
<tbody>
<tr>
<td>banana</td>
<td>22p</td>
<td>28p</td>
</tr>
<tr>
<td>apple</td>
<td>34p</td>
<td>16p</td>
</tr>
<tr>
<td>pear</td>
<td>31p</td>
<td>19p</td>
</tr>
<tr>
<td>grapes</td>
<td>42p</td>
<td>8p</td>
</tr>
</tbody>
</table>

Lucy buys an apple and some grapes. She pays with a £1 coin. Tick the box which shows the change she receives.

[✓] 28p
[ ] 16p
[ ] 19p
[ ] 8p
Use whichever method you prefer to solve these problems.

There are 12 children in the room. **How many legs** are there?

**Each child has 2 legs, which makes 12 lots of 2.**

\[ 12 \times 2 = 24 \text{ legs} \]

Bananas cost £2 a bunch. William buys 4 bunches. **How much** does he pay?

\[ 4 \times 2 = £8 \]

Maddy swims 6 widths of the pool. Each width is 10 metres. **How far** does she swim altogether?

\[ 6 \times 10 = 60 \text{ metres} \]

There are 7 days in one week. **How many days** are there in 5 weeks?

\[ 7 \times 5 = 35 \text{ days} \]

Laura needs 15 litres of cola for a party. One bottle of cola holds 2 litres and she has 8 bottles. **Does she have enough cola?** Show how you know.

**She does have enough. We know this because** \[ 8 \times 2 = 16 \text{ litres} \] **so this is more than the 15 litres that she needs.**
Use whichever method you prefer to solve these problems.

There are 50 toes in the room. **How many people** are there?

**Each person has 10 toes.**

\[ 50 \div 10 = 5 \text{ people}. \]

Joe put three scoops of ice cream onto each cone. He made 21 scoops altogether. **How many cones** were there?

\[ 21 \div 3 = 7 \text{ cones} \]

A box holds 5 pencils. Mrs Brown needs 30 pencils for her class. **How many boxes** does she need?

\[ 30 \div 5 = 6 \text{ boxes} \]

Ben spends £1 on raffle tickets. He is given 10 tickets. **How much is each ticket?**

£1 is the same as 100p.

\[ 100 \div 10 = 10p \]

Ruby shares 23 sweets equally between 5 of her friends. Any sweets left over, she keeps for herself. **How many sweets** does Ruby get?

**Ruby gets 3 sweets.**

\[ 23 \div 5 = 4 \text{ (remainder 3)} \]
Fractions of Shapes

First, let’s look at finding fractions of shapes.

Shade $\frac{1}{2}$ of each of these shapes.

1 section of the triangle, 2 sections of the circle and 4 sections of the rectangle should be shaded. It doesn’t matter which sections you shade, as long as the correct number of sections are shaded.

Now shade $\frac{1}{4}$ of these shapes.

1 section of the first two shapes and 2 sections of the last shape should be shaded. It doesn’t matter which sections you shade, as long as the correct number of sections are shaded.
Shade $\frac{1}{3}$ of these shapes.

1 section of the circle, 2 sections of the hexagon and 2 sections of the square should be shaded. It doesn’t matter which sections you shade, as long as the correct number of sections are shaded.

Shade $\frac{3}{4}$ of these shapes.

3 sections of the first two shapes, and 6 sections of the last shape should be shaded. It doesn’t matter which sections you shade, as long as the correct number of sections are shaded.
The same thing applies when we are finding fractions of quantities. You need to make sure you know your $2\times$ and $3\times$ tables and that you are confident with halving. Let’s practise. Use objects like buttons, beads or pieces of pasta if this helps you.

<table>
<thead>
<tr>
<th>Find $\frac{1}{2}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>6</td>
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<tr>
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<td>12</td>
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<td>14</td>
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<tr>
<td>16</td>
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<tr>
<td>18</td>
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<tr>
<td>20</td>
</tr>
</tbody>
</table>
Now, let’s try finding $\frac{1}{4}$. Remember to find half and then halve again.

<table>
<thead>
<tr>
<th></th>
<th>Find $\frac{1}{2}$</th>
<th>Find $\frac{1}{4}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>2</td>
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<td>8</td>
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<td>2</td>
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<td>40</td>
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</table>
Now, see if you can find \(\frac{3}{4}\). Remember, find \(\frac{1}{4}\) then multiply this by 3.

<table>
<thead>
<tr>
<th></th>
<th>Find (\frac{1}{2})</th>
<th>Find (\frac{1}{4})</th>
<th>Find (\frac{3}{4})</th>
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<tbody>
<tr>
<td>4</td>
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<td>30</td>
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</tbody>
</table>
Finally, let’s find $\frac{1}{3}$.

<table>
<thead>
<tr>
<th></th>
<th>Find $\frac{1}{3}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>15</td>
<td>5</td>
</tr>
<tr>
<td>18</td>
<td>6</td>
</tr>
<tr>
<td>21</td>
<td>7</td>
</tr>
<tr>
<td>24</td>
<td>8</td>
</tr>
<tr>
<td>27</td>
<td>9</td>
</tr>
<tr>
<td>30</td>
<td>10</td>
</tr>
</tbody>
</table>
There are 24 children in Gold Class. Half of them are girls. How many are boys?

\[ \frac{1}{2} \text{ of } 24 \text{ is } 12, \text{ so there must be } 12 \text{ girls and } 12 \text{ boys.} \]

Molly has some pens. She gives half of them to Chloe. Molly has 6 pens left. How many did she start with?

6 is half of 12, so she had 12 pens to start with.

Jack has saved £12. He spends \(\frac{1}{4}\) of his money on a new toy car. How much does the car cost? How much does Jack have left?

\[ \frac{1}{4} \text{ of } £12 \text{ is } £3 \]

The car cost £3.

\[ £12 - £3 = £9 \]

He has £9 left.

My cake recipe says I need 60ml of milk. I have to add \(\frac{1}{3}\) of the milk to the mixture. How much do I need to add?

\[ \frac{1}{3} \text{ of } 60\text{ml} \text{ is } 20\text{ml.} \]

Kim has a piece of ribbon, which is 28cm long. She cuts \(\frac{3}{4}\) of it off. How long are her two pieces of ribbon?

\[ \frac{3}{4} \text{ of } 28 \text{ cm} \text{ is } 21\text{cm (1/4 is } 7\text{cm, } 3 \times 7\text{cm is } 21\text{cm) so the pieces of ribbon are } 21\text{cm and } 7\text{cm long.} \]
Properties of 2D Shapes

First, let’s remind ourselves of the shape names. Label these shapes.

- circle
- square
- triangle
- rectangle
- pentagon
- hexagon
- octagon

Now, write how many sides and how many corners each shape has.

<table>
<thead>
<tr>
<th>Name</th>
<th>Sides</th>
<th>Corners</th>
</tr>
</thead>
<tbody>
<tr>
<td>pentagon</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>rectangle</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>hexagon</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>square</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>octagon</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>triangle</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>circle</td>
<td>1</td>
<td>no corners</td>
</tr>
</tbody>
</table>

Now, write how many sides and how many corners each shape has.

Try some questions on the next page.
Draw lines to match these shapes to their names.

triangle
hexagon
octagon
pentagon
Write these shape names in the correct place in the Carroll diagram.

<table>
<thead>
<tr>
<th>square</th>
<th>hexagon</th>
<th>rectangle</th>
<th>circle</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4 Sides or Less</th>
<th>More Than 4 Sides</th>
</tr>
</thead>
<tbody>
<tr>
<td>square</td>
<td></td>
</tr>
<tr>
<td>rectangle</td>
<td></td>
</tr>
<tr>
<td>circle</td>
<td></td>
</tr>
<tr>
<td>hexagon</td>
<td></td>
</tr>
</tbody>
</table>

Which statements are correct? Tick **two**.

A square has four sides.  
✓

A square is symmetrical.  
✓

The sides of a square are not the same length.  

A square has one curved side.  

First, let’s remind ourselves of the 3D shape names. Label these shapes.

sphere     cube     cuboid     cylinder     cone     triangular prism
square-based pyramid     triangular-based pyramid

Now, write how many faces, edges and vertices each shape has.

<table>
<thead>
<tr>
<th>Name</th>
<th>Faces</th>
<th>Edges</th>
<th>Vertices</th>
</tr>
</thead>
<tbody>
<tr>
<td>triangular prism</td>
<td>5</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>cylinder</td>
<td>3</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>square-based pyramid</td>
<td>5</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>sphere</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>cuboid</td>
<td>6</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td>cone</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>cube</td>
<td>6</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td>triangular-based pyramid</td>
<td>4</td>
<td>6</td>
<td>4</td>
</tr>
</tbody>
</table>

Now, write how many faces, edges and vertices each shape has.
Shape Problems
Adam is painting by printing with a 3D shape. His 3D shape is a triangular prism. What two 2D shapes can he make?

He can make triangles and rectangles.

Mo says, ‘A cone has no vertices.’ Is he correct? Explain your answer.

No he is not right. A cone has one vertex.

Priya is holding a 3D shape. She says, ‘My shape has five faces. Four of the faces are the same shape and one is different.’ What shape is Priya holding?

She is holding a square-based pyramid.
Write these shape names in the correct place in the Venn diagram.

sphere      cube      cone      cylinder      pyramid

sphere
cone

All Curved Faces

cube
pyramid

All Flat Faces

Which statements are correct? Tick **two**.

A square has four sides.  
✓

A square is symmetrical.  
✓

The sides of a square are not the same length.  

A square has one curved side.
First, let’s look at movement and turning. Look at this arrow:

```
forward

left   right

back
```

Draw what the arrow would look like if it turned to the left.

←

Now, draw what it would look like if it turned to the right.

→
Draw arrows to show these movements. The grey arrow shows where to start. The first one has been done for you.

- Quarter turn clockwise
- Three-quarter turn clockwise
- Half turn anti-clockwise
- Quarter turn clockwise
- Three-quarter turn anti-clockwise
- Quarter turn clockwise

Visit twinkl.com
Complete these sequences.

- **15, 20, 25, 30, 35, 40, 45, 50**

- **1, 3, 5, 7, 9, 11, 13, 15**

Look at this sequence. What would the 10th term be? **20**

- **2, 4, 6, 8, 10, 12**

Look at this sequence. What would the 8th term be? **24**

- **3, 6, 9, 12**

Look at this sequence. What would the 9th term be? **○**

- **〇 △ 〇 △ 〇 △ 〇 △ 〇 △**

- **〇 △ □ △ 〇 △ □ △ 〇 △ △**

Look at this sequence. What would the 12th term be? **〇**

- **〇 × 〇 × 〇 ×**

- **❤ ❤ ⭐ 〇 ⭐ 〇 ⭐ 〇 ⭐**
Fill in the missing sections in these sequences.

\[
\begin{array}{c}
2 \\
4 \\
3 \ 6 \ 9 \ 12 \ 15 \ 18 \ 8 \ 10 \ 12 \ 14 \ 16
\end{array}
\]

Fill in the missing sections in these sequences.

\[
\begin{array}{c}
X \\
O \\
! \ X \ @ \ X \ ! \ X \ @ \ X
\end{array}
\]

\[
\begin{array}{c}
O \\
X \\
O
\end{array}
\]
Lily has a pack of coloured sweets. She empties them out and looks at how many there are of each different colour. Here are her sweets:

Lily decides to count the colours and record this information in a tally chart. Can you finish the tally chart for her?

<table>
<thead>
<tr>
<th>Colour</th>
<th>Tally</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>red</td>
<td>1 1 1</td>
<td>3</td>
</tr>
<tr>
<td>purple</td>
<td>1 1 1</td>
<td>8</td>
</tr>
<tr>
<td>pink</td>
<td>1 1 1</td>
<td>3</td>
</tr>
<tr>
<td>orange</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>blue</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>green</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
Next, Lily decides to make a pictogram. She has made a start. Can you finish it?
Finally, Lily makes a block graph.

Which colour is the most popular? **purple**

Which two colours have the same number of sweets? **red and pink**

How many sweets are there altogether? **22**

How many more purple sweets are there than blue? **6**

Lily eats 3 purple sweets, 2 green sweets and 2 red sweets.

What will the tally chart look like now?

<table>
<thead>
<tr>
<th>Colour</th>
<th>Tally</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>red</td>
<td>I</td>
<td>1</td>
</tr>
<tr>
<td>purple</td>
<td>11111</td>
<td>5</td>
</tr>
<tr>
<td>pink</td>
<td>111</td>
<td>3</td>
</tr>
<tr>
<td>orange</td>
<td>I</td>
<td>1</td>
</tr>
<tr>
<td>blue</td>
<td>11</td>
<td>2</td>
</tr>
<tr>
<td>green</td>
<td>111</td>
<td>3</td>
</tr>
</tbody>
</table>

How many sweets are left? **15**
First, let’s look at the units we use to measure. Draw lines to match the units to the measures. The first one has been done for you.

- millimetres, centimetres, metres (capacity)
- grams, kilograms (weight)
- seconds, minutes, hours (time)
- millilitres, litres (volume)
- degrees centigrade (temperature)
To save time, we can write some units of measurement in a shorter way. Can you complete the table?

<table>
<thead>
<tr>
<th>Unit</th>
<th>Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>metres</td>
<td>m</td>
</tr>
<tr>
<td>millilitres</td>
<td>ml</td>
</tr>
<tr>
<td><strong>centimetres</strong></td>
<td>cm</td>
</tr>
<tr>
<td>kilograms</td>
<td>kg</td>
</tr>
<tr>
<td><strong>degrees Centigrade</strong></td>
<td>°C</td>
</tr>
<tr>
<td>grams</td>
<td>g</td>
</tr>
<tr>
<td><strong>millimetres</strong></td>
<td>mm</td>
</tr>
<tr>
<td>litres</td>
<td>l</td>
</tr>
</tbody>
</table>

It is important to use the right unit when you are measuring. What unit would you use to measure these things?

<table>
<thead>
<tr>
<th>Description</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>the water in a swimming pool</td>
<td>litres</td>
</tr>
<tr>
<td>a pencil</td>
<td>centimetres</td>
</tr>
<tr>
<td>the temperature in your classroom</td>
<td>degrees Centigrade</td>
</tr>
<tr>
<td>the liquid in a cup of tea</td>
<td>millilitres</td>
</tr>
<tr>
<td>the distance from your home to Australia</td>
<td>kilometres</td>
</tr>
</tbody>
</table>
Measuring Length

Use a centimetre ruler to measure these objects. Remember that you need to measure from the ‘zero’ marker (not the end of the ruler). Don’t forget to write your answer using ‘cm’, e.g. ‘5cm’.

![Car](image1)
- 9cm

![Pencil](image2)
- 5cm

![Book](image3)
- 8cm

![Chocolate](image4)
- 7cm

![Gift](image5)
- 6cm

![Gift](image6)
- 10cm
Measuring Capacity

Being able to read a scale is important when you are measuring. Measuring jugs will have a scale on them but they will not show every single millilitre. Have a go at reading the scales on these jugs. Don’t forget to write your answers in millilitres (ml).

Draw a circle around the jug holding the most water.

Put a cross next to the jug holding the least water.
Measuring Weight

Being able to read a scale is important when you are measuring. Weighing scales will have a numbered scale on them but they will not show every single gram. Have a go at reading the weights shown by these scales. Don’t forget to write your answers in grams (g).

Draw a circle around the scale with the heaviest parcel.

Put a cross next to the scale with the lightest parcel.
Measuring Temperature

Being able to read a scale is important when you are measuring. Thermometers will have a numbered scale on them but they will not show every single degree. Have a go at reading the temperatures shown by these thermometers. Don’t forget to write your answers in degrees Celsius (°C).

30°C

45°C

5°C

23°C

Draw a circle around the thermometer showing the coldest temperature.

Put a cross next to the thermometer showing the hottest temperature.
What Time Is It? – Times Past and To  
Use the clock to help you draw hands on each clock to show the correct time.

<table>
<thead>
<tr>
<th>Time</th>
<th>Time</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>quarter past 9</td>
<td>10 past 10</td>
<td>25 to 8</td>
</tr>
<tr>
<td>20 to 1</td>
<td>25 to 7</td>
<td>5 past 2</td>
</tr>
<tr>
<td>25 past 3</td>
<td>10 to 12</td>
<td>quarter to 4</td>
</tr>
<tr>
<td>5 to 11</td>
<td>half past 5</td>
<td>20 past 6</td>
</tr>
</tbody>
</table>

**Challenge:** Choose four of the times shown above. What might you be doing at these times?