

Thousands

N1.20

Which amount of money would you pick ?

£5,099

or

£5,101



I'd pick £5,101 as it has more hundreds.



Put a ring around the amount you would pick in each box.

£6074

£1001

£6,423

£3,894

£3,489

£6704

£999

£6,324

£3,498

£3,984

£8,009

£8,010

£2,900

£3,111

£3,090

Put these numbers in order. Start with the smallest.

360 6003 36 3060 _____

5429 5294 5942 5492 _____

8091 1009 1990 998 _____

1101 1100 1010 1001 _____

780 7080 7008 7088 _____

Mick has four number cards.



I can move them around to make different numbers.

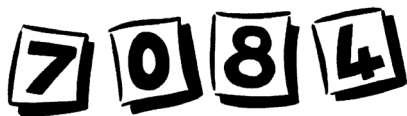


Example 5391

Write down four **different** numbers he could make. _____

What are the **largest** and **smallest** numbers he could make ?

Largest _____ Smallest _____



I'm Sue. These are my number cards.



What are the **largest** and **smallest** numbers Sue can make ?

Largest _____ Smallest _____

Temperature Changes

N2·20

Outside
temperature
 -2°C



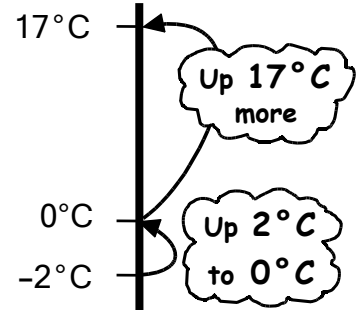
Inside
temperature
 17°C

One day in January Darius walks to his office.
When he goes inside the temperature
goes up from -2°C to 17°C .



I count up in two steps to
find the temperature change.

So the temperature goes up by $2 + 17 = 19^{\circ}\text{C}$



[1] When he leaves the office the temperature inside is 15°C .

Outside the temperature is now -3°C .

How many degrees does the temperature drop ? _____

Starting Temperature	Temperature Change	Final Temperature
-1°C	Down 4°C	-5°C
-3°C		8°C
-2°C		10°C
-8°C		-6°C
4°C		-7°C
-3°C		-12°C
-9°C		-1°C
10°C		-5°C
-12°C		-4°C
-11°C		6°C
-4°C		-20°C

[2] Fill in the table like the example.



What is the
temperature change ?
Is it UP or DOWN ?
How many degrees ?

[3] A frozen chicken is taken
out of a freezer where the
temperature is -18°C .

It defrosts to the room
temperature of 15°C .

How many **degrees** does the
temperature of the chicken rise ?



Adding

AB5



Work out
the answers.

$2 + 3 = \underline{5}$

$5 + 2 = \underline{\quad}$

$3 + 6 = \underline{\quad}$

$7 + 3 = \underline{\quad}$

$6 + 2 = \underline{\quad}$

$3 + 5 = \underline{\quad}$

$4 \text{ plus } 4 \text{ is } \underline{\quad}$

$1 \text{ plus } 8 \text{ is } \underline{\quad}$

$5 \text{ plus } 3 \text{ is } \underline{\quad}$

$7 \text{ plus } 2 \text{ is } \underline{\quad}$

$4 \text{ plus } 5 \text{ is } \underline{\quad}$

$5 \text{ plus } 4 \text{ is } \underline{\quad}$

$6 \text{ plus } 4 \text{ is } \underline{\quad}$

Find the sum of the numbers.

4

2

Sum is 6

3

4

Sum is

8

2

Sum is

3

3

Sum is

9

1

Sum is

2

6

Sum is

Make It Easier!

Ar1.4

[1]

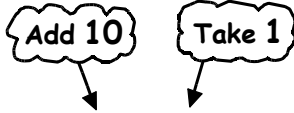


Which addition is easier?

$67 + 10 = \underline{\quad}$ or $67 + 9 = \underline{\quad}$?



The easy way to **add 9** is *add 10, take 1*



Work these out like the example.

[2] $54 + 9 = \underline{64 - 1 = 63}$

$38 + 9 = \underline{\quad}$ $9 + 27 = \underline{\quad}$ $76 + 9 = \underline{\quad}$

$65 + 9 = \underline{\quad}$ $42 + 9 = \underline{\quad}$ $9 + 13 = \underline{\quad}$

[3] The easy way to **add 8** is $\underline{\quad}$

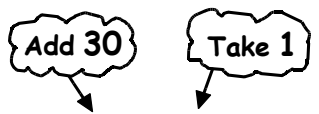
$49 + 8 = \underline{\quad}$ $67 + 8 = \underline{\quad}$ $88 + 8 = \underline{\quad}$

$74 + 8 = \underline{\quad}$ $8 + 53 = \underline{\quad}$ $8 + 35 = \underline{\quad}$

The easy way to **add 29** is *add 30, take 1*



[4] Find **easy** ways to do these additions. Write down your ideas like the example.



$52 + 29 = \underline{82 - 1 = 81}$ $78 + 18 = \underline{\quad}$

$65 + 19 = \underline{\quad}$ $45 + 29 = \underline{\quad}$

$23 + 49 = \underline{\quad}$ $66 + 17 = \underline{\quad}$

$46 + 7 = \underline{\quad}$ $57 + 38 = \underline{\quad}$

$37 + 39 = \underline{\quad}$ $29 + 67 = \underline{\quad}$

$16 + 48 = \underline{\quad}$ $19 + 18 = \underline{\quad}$

Multiplication Puzzles

Ar2.7

Type in the **multiplications** you do to answer these questions.

Easter eggs
only
£3 each

How much would
four eggs cost ?

X **=**



How many sausages
in **two** packs ?

X **=**

How many pencils
in seven boxes ?



X **=**

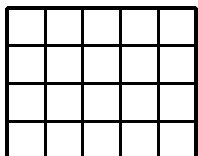
I walked **6** miles.



Joe walked **twice** as far.

How far did Joe walk ?

X **=**



How many paving stones ?

X **=**



How many litres of
paint in **five** tins ?

X **=**

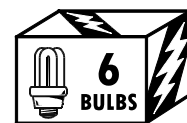
Our cafe has ten tables.
Each table has four chairs.



How many chairs are there **altogether** ?

X **=**

What is the **total** number
of bulbs in three boxes ?



X **=**

How many people could
travel in two coaches ?

MAXIMUM
46 passengers
in one coach

X **=**



Lisa put **three** plants in each pot.

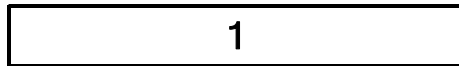
How many plants did she use ?

X **=**

Halves and Quarters

FB14

One whole



Two halves



Four quarters



What number goes here?

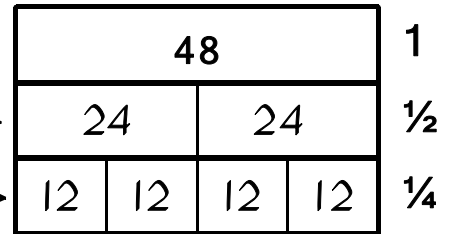
[1] $\frac{1}{2}$ is the same as $\frac{\quad}{4}$



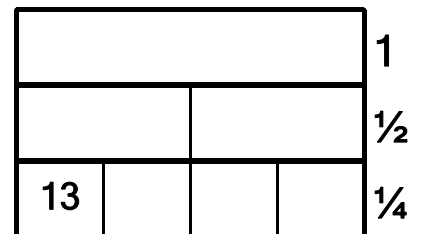
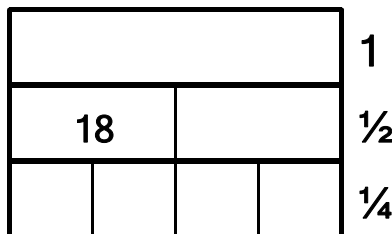
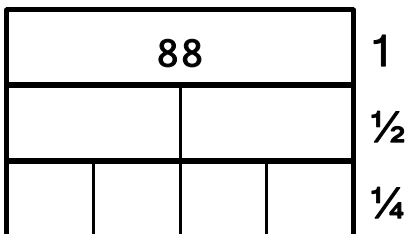
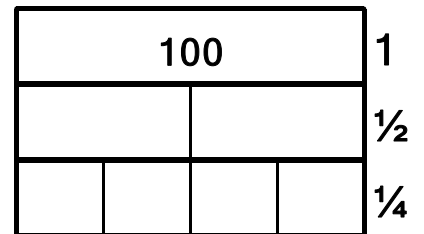
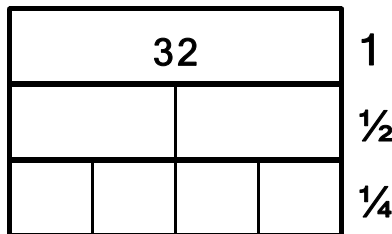
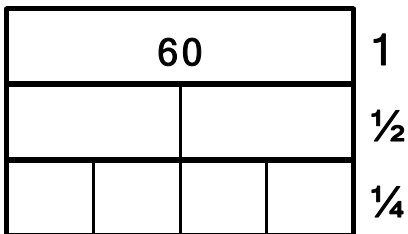
You can split 48 into quarters like this ...

Find $\frac{1}{2}$ of 48

Split each half into two quarters.

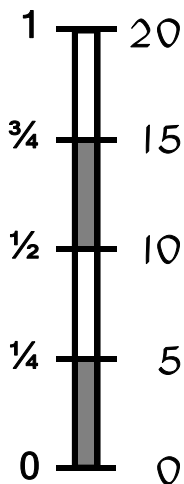


[2] Fill in the spaces in these boxes.

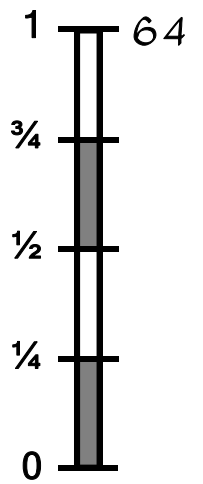
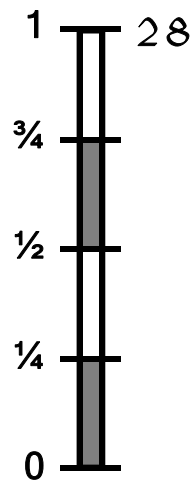
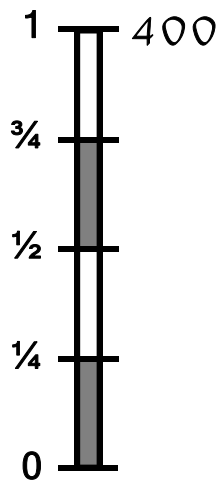


Example

[3] Complete these scales like the example.



I worked out $\frac{1}{2}$ then $\frac{1}{4}$ then $\frac{3}{4}$



Multiplying by 1000

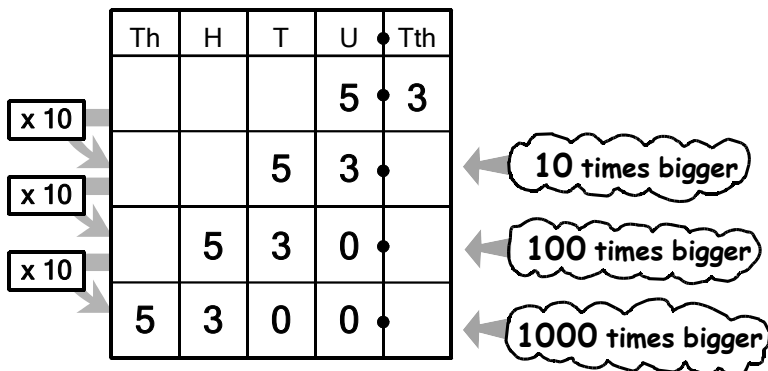
DA21

To make a number **1000** times bigger multiply it by **10** **THREE** times.

So $5 \cdot 3 \times 1000 = 5300$

I use $5 \times 1000 = 5000$ as a quick check.

The **5** units become **5** thousands.



[1] When a number is multiplied by **1000**, each digit moves _____ columns to the _____

[2] Fill in the spaces in this table.

Starting number	0.32	0.09	1.8	x 10
10 times bigger				x 10
100 times bigger				x 10
1000 times bigger				

[3] Work out the missing numbers.

$0.7 \times 1000 = \underline{\hspace{2cm}}$

$1000 \times 0.035 = \underline{\hspace{2cm}}$

$0.04 \times 1000 = \underline{\hspace{2cm}}$

$1000 \times \underline{\hspace{2cm}} = 51$

$9.81 \times 1000 = \underline{\hspace{2cm}}$

$1000 \times 82.4 = \underline{\hspace{2cm}}$

$0.036 \times 1000 = \underline{\hspace{2cm}}$

$\underline{\hspace{2cm}} \times 1000 = 800$

[4] Which answers are correct? ✓ or ✗

$7.15 \times 1000 = 715$

$0.006 \times 1000 = 6$

$1000 \times 32.04 = 32,000.04$

$1000 \times 0.95 = 950$

[1] What is the easiest way to work out 10% of a number ?



Example



What is 10% of £48 ?

$$£48.00 \div 10 = £4.80$$

Finding 10% is the same as finding $\frac{1}{10}$

[2] Write down 10% of each amount.

£3 _____

£71 _____

56 kg _____

£8.00 _____

24.5 litres _____

£6.70 _____

£91.30 _____

18.2 km _____

4.9 m _____

10% DISCOUNT for STUDENTS



How much would a student pay for these things ?

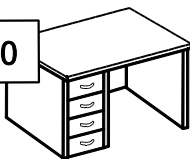
[3] Write down the discount then work out the student price.



Discount _____

Student Price _____

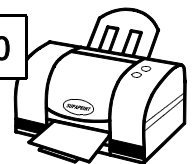
£68.90



Discount _____

Student Price _____

£122.50



Discount _____

Student Price _____

[4] What is the shop price of the mouse ? _____

£ ?



How much did he pay for the mouse ? _____

The 10% discount saved me £1.45



Fractions

F1



This strip is split into 5 equal parts.

Each part is **one fifth** or $\frac{1}{5}$



Now 3 parts are shaded.

The shaded part is **three fifths**.

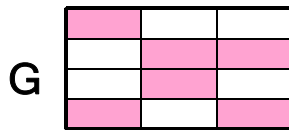
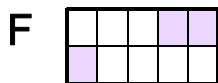
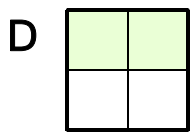
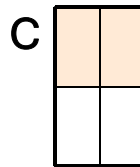
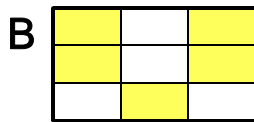
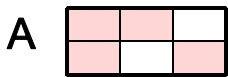
Written as a fraction this is $\frac{3}{5}$



Three parts out of five are shaded.

[1] What fraction is **not** shaded? _____

[2] What fractions of these shapes are **shaded** and **not shaded** ?
Write your answers in the table like the example.

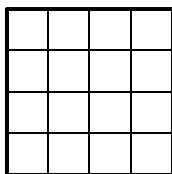


C and G can be written two different ways.

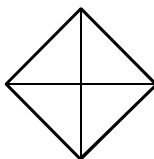
	Shaded	Unshaded
A	$\frac{4}{6}$	$\frac{2}{6}$
B		
C		
D		
E		
F		
G		

[3] **Shade** in the right number of parts in these shapes.

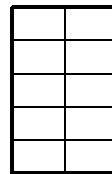
$\frac{5}{16}$



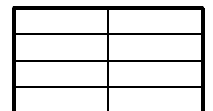
$\frac{3}{4}$



$\frac{3}{10}$



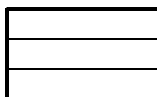
$\frac{7}{8}$



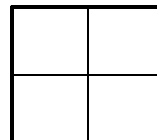
Three quarters of people don't like fractions.



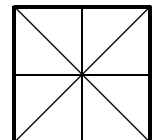
$\frac{2}{3}$



$\frac{1}{2}$



$\frac{3}{4}$



[4] Draw a shape.

Shade $\frac{5}{6}$ of it.

[5] If $\frac{4}{7}$ of a shape is shaded what fraction is **unshaded** ? _____

Scaling Recipes

R5

[1] This recipe shows what you need to make 4 pizza bases.

To make **FEWER** pizza bases the recipe can be **SCALED DOWN**.

PIZZA BASES

Makes 4

- 600 g flour
- 3 teaspoons of salt
- 24 g yeast
- 420 ml water
- 50 ml cooking oil

To make **MORE** pizza bases the recipe can be **SCALED UP**.

For 2 pizza bases you need :

- _____ flour
- _____ teaspoons of salt
- _____ yeast
- _____ water
- _____ cooking oil

HALVE
the
amounts

DOUBLE
the
amounts



For 8 pizza bases you need :

- _____ flour
- _____ teaspoons of salt
- _____ yeast
- _____ water
- _____ cooking oil

[2]



I need to make 6 pizza bases.

How can you work out how much of each ingredient he needs ?

Complete the recipe.

For 6 pizza bases you need :

- _____ flour
- _____ teaspoons of salt
- _____ yeast
- _____ water
- _____ cooking oil



VEGETABLE PASTA SAUCE

Serves 2



- 100g diced onion
- 1/2 red pepper
- 120g courgettes
- 50g mushrooms
- 1 tin chopped tomatoes

I need to make enough for 5 people.



[3] Work out what she needs.

- _____ diced onion
- _____ red pepper
- _____ courgettes
- _____ mushrooms
- _____ chopped tomatoes

Weight

MsB11

Kilograms are used to measure how much things weigh.



This bag of sugar weighs one kilogram.

Short ways to write kilograms are

kg

or

kilos



[1]

Rabbit
6 kg



Cat
4 kg



Dog
25 kg



Which animal is heaviest? _____

Which animal is lightest? _____

The dog is _____ kg heavier than the rabbit.

[2] What is the total weight of the two suitcases? _____

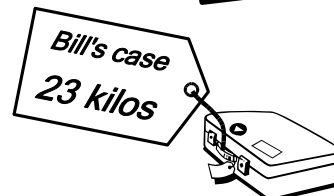
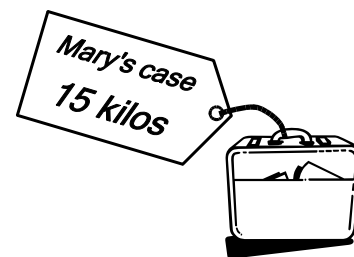
How much heavier is

Bill's suitcase than Mary's? _____

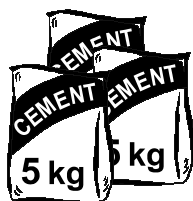
Mary's case is packed with clothes.

When it was empty it weighed 2 kilograms.

How much do Mary's clothes weigh? _____



[3]



How many kilograms do three bags of cement weigh altogether? _____

[4] Half a sack of potatoes weighs _____



Centimetres and Millimetres

M3

[1] One centimetre is made up of _____ millimetres so **half** a centimetre is _____ mm.

[2]



To change centimetres to millimetres multiply by 10

4 cm = _____ mm

4.3 cm = _____ mm

7 cm = _____ mm

3.9 cm = _____ mm

10 cm = _____ mm

0.5 cm = _____ mm

56 cm = _____ mm

8½ cm = _____ mm

[3] Fill in the missing numbers : One metre is _____ cm or _____ mm



[4] Are these measurements sensible ? Answer **yes** or **no** .

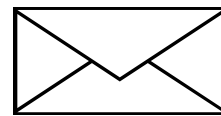
A pencil is 150 mm long. _____ A sheet of paper is 1 mm thick. _____

A pound coin is 2.2 cm across. _____ A baby is 120 cm long. _____

To change the **dimensions** of this envelope into centimetres, **divide by 10**.

110 mm = $110 \div 10 = 11$ cm and

218 mm = $218 \div 10 = 21.8$ cm



110 mm

218 mm

[5]

Change these distances to centimetres.

80 mm = _____ cm

108 mm = _____ cm

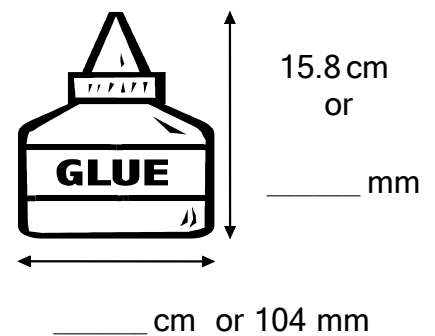
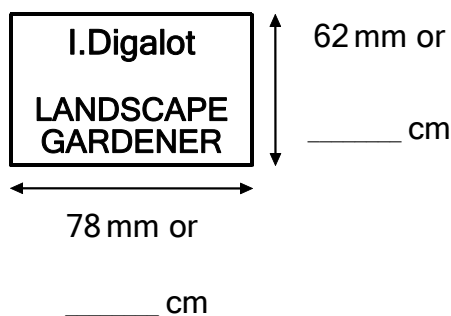
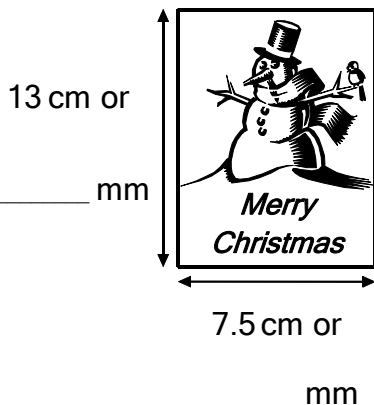
150 mm = _____ cm

7 mm = _____ cm

64 mm = _____ cm

15 mm = _____ cm

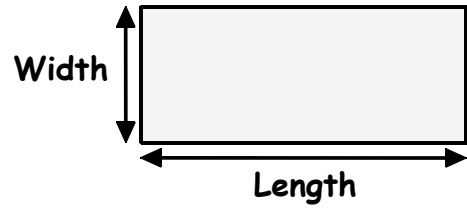
[6] Fill in the missing measurements below.



Measuring Rectangle Areas

A7

To work out the **area** of a rectangle you need to know its **dimensions**.
The dimensions are the **length** and **width**.



Use this rule to work out the areas.

$$\text{Rectangle Area} = \text{Length} \times \text{Width}$$

If you measure the dimensions in **feet** then you can work out the area of the rectangle in **square feet**.

UNITS for Small Areas

- Square millimetres
- Square centimetres
- Square inches

UNITS for Large Areas

- Square metres
- Square feet
- Square yards



Decide which unit is most sensible for each rectangle.

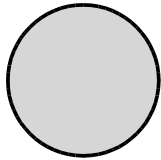


Measure some rectangles and calculate their areas.
Try to use each of the units once.
Write your results in the table below like the example.

Rectangle	Length	Width	Area Calculation
Desk top	5 ft	3 ft	$5 \times 3 = 15 \text{ ft}^2$

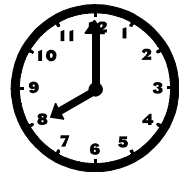
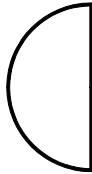
Circles

SB6



This round shape is called a circle.

Tick the pictures of circles.

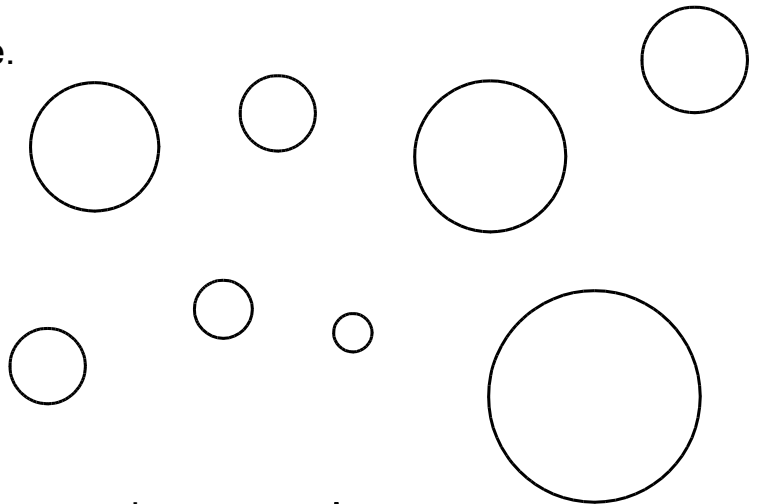


Join the words to the shape.

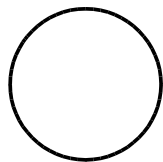
Biggest circle



Smallest circle



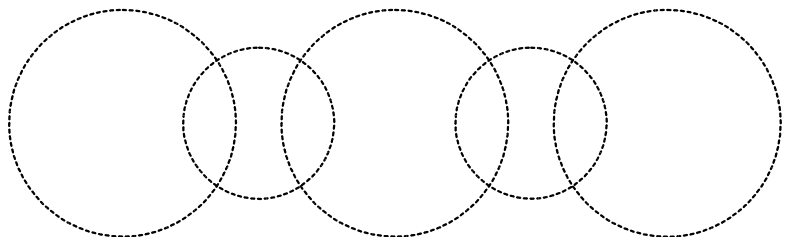
Colour in the two circles that are the same size.



Mark the centre of this circle with a dot.



Draw around these circles carefully.

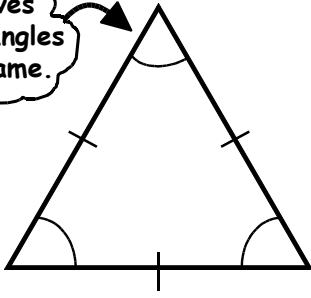


Shade where the circles overlap.

Triangles

2D·9

The curves show the angles are the same.



This is an **equilateral** triangle.

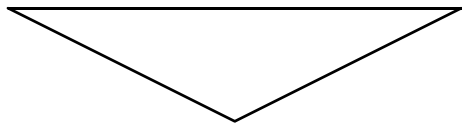
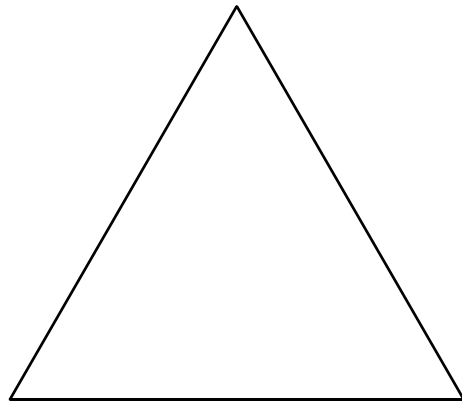
It has **3 equal sides** and **3 equal angles**.



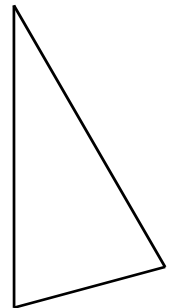
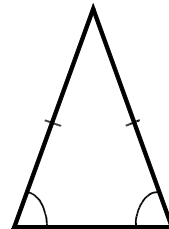
The angles of any triangle add up to **180°**

- [1] Draw the lines of symmetry on this equilateral triangle.
- [2] The order of rotational symmetry of an equilateral triangle is _____
- [3] Work out the size of each angle.

Answer _____

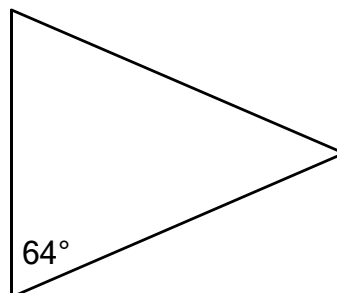
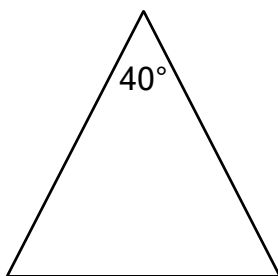


These are **isosceles** triangles.
They have **2 equal sides** and **2 equal angles**.



- [4] Mark the equal sides and equal angles on the other two triangles.
- [5] Each isosceles triangle has one line of symmetry. Draw the line of symmetry on each triangle.
- [6] Does an isosceles triangle have rotational symmetry? _____

- [7] Calculate the missing angles in these isosceles triangles.

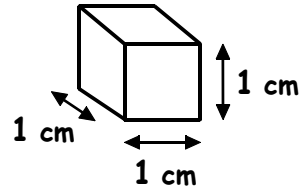


Volume

3D·7



The length of each edge of this cube is one centimetre.



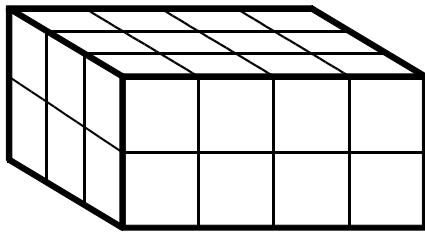
It is called a **cubic centimetre** or cm^3 .

The amount of space taken up by a 3D shape is called its **volume**.

Volume can be measured by counting the number of cubic centimetres that fit inside a shape.

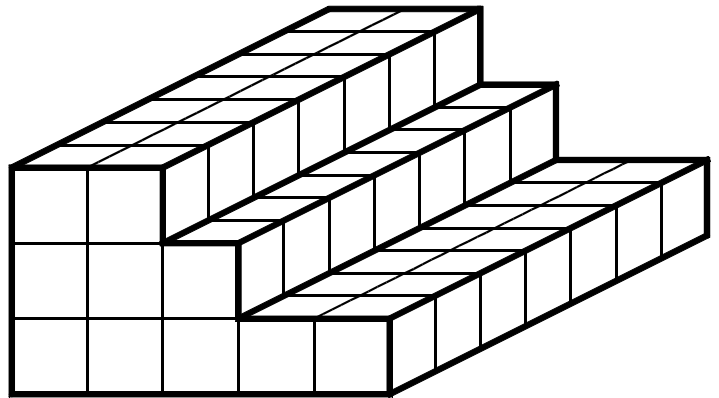
Work out the volumes of these shapes.

[1]



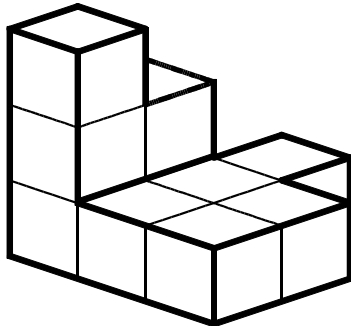
Cuboid volume _____ cm^3

[4]



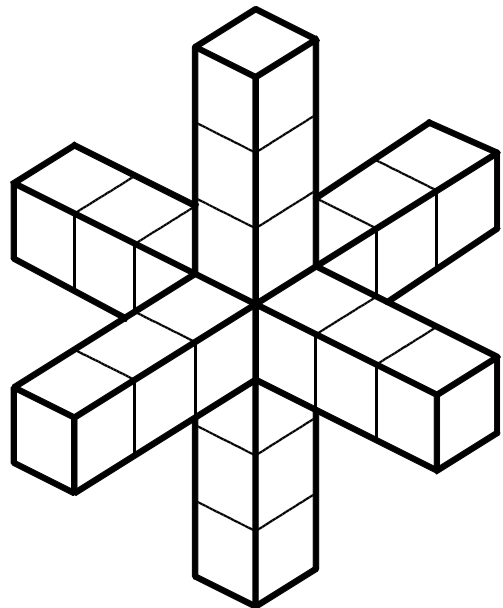
Prism volume _____ cm^3

[2]



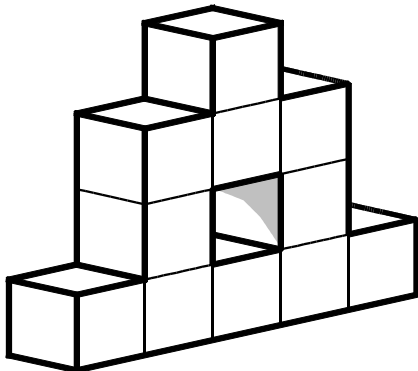
Volume _____

[5]



Volume _____

[3]



Volume _____

[1]



The time on this watch is _____

Three hours later it will be _____

[2] What **day** is it today ? _____

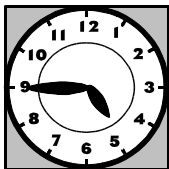
Write down today's **date**. _____

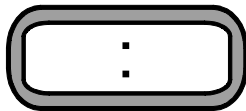


[3] What is the **seventh** month of the year ? _____

Write these times using **words** and **numbers**.

[4]

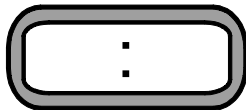




Half an hour ago it was

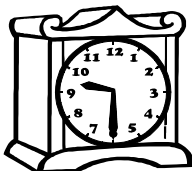
[5]

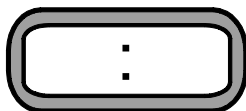




In a quarter of an hour it will be

[6]





One hour later the time is

[7]



My son Javed was born
at quarter to eight
on January the third this year.

Javed was born at



Write the time
in numbers.

His **date of birth** is _____

How long did Hassan spend working on his college project on Monday ?



Morning Afternoon Evening

$$2 \text{ hr } 25 \text{ min} + 40 \text{ min} + 1 \text{ hr } 10 \text{ min} = 3 \text{ hr } 75 \text{ min} = 4 \text{ hr } 15 \text{ min}$$

Add hours to hours and minutes to minutes.

Change to 1 hour 15 min

[1]

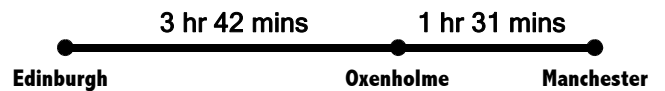


Morning 1 hour 50 minutes
Afternoon 2 hours 25 minutes
Evening 55 minutes

How long did Hassan work on Tuesday ?

[2] Work out the **total** time he spent on his project during these two days.

[3] How long does the train take to get from Edinburgh to Manchester ?



[4]

Drama 50 mins
Comedy 30 mins
Film 1³/₄ hours

Is there enough time to watch all these programs in **3 hours** ?
Explain your answer.

[5]



I've worked for four hours and twenty minutes.

Her shift lasts **7½ hours**. How much longer till the shift ends ?

[6] How long did Peter take to complete the **TRIATHLON** ?



TRIATHLON TIMES

Swim	1.3 miles	39 min
Cycle	56 miles	2 hr 58 min
Run	13 mile	2 hr 34 min

£ 7.49



This paint costs
Seven pounds and 49 pence.



Fill in the spaces.

£ 3.84

is _____ pounds and _____ pence

£ 9.50

is _____ pounds and _____ pence

£ 1.25

is _____ pound and _____ pence

£ 4.02

is _____ pounds and _____ pence

£ 15.99

is _____ pounds and _____ pence



This mug costs three pounds and 85 pence.



£ 3 is 300 pence



£ 3.85

The mug costs £3.85 which is 385 pence.

£1.93 is _____ pence

£3.02 is _____ pence

£6.57 is _____ pence

£8.99 is _____ pence

£4.20 is _____ pence

£12.46 is _____ pence

Subtracting Money

Mon6

[1] Angie had £14.27.
She spent 85p on her bus fare.

$$\begin{array}{r} 14.27 \\ - 0.85 \\ \hline \\ \hline \end{array}$$

Write both amounts
in POUNDS.
Line up the decimal
points then subtract.



How much did I have left?

Show how you work out the answers to these problems.

[2]



£32.99

I got £5 off the price.



He paid _____

[3]

Hotel Room prices

Apr £84.32

May £87.50

Price increase is _____

[4]



MEGABUCKS

£41.95

SUPASAVE

£42.48

Price difference is _____

[5]



£29.99



I want this game.
I've got £15.36

He needs _____ more.

[6]

I went out with £80.
I spent 79p and £36.40



She spent _____ altogether.

She has _____ left.

[7]



I earn £385.67
a week then
£69.24 is taken
off for tax
and stuff.

His 'take home' pay is _____

[8]

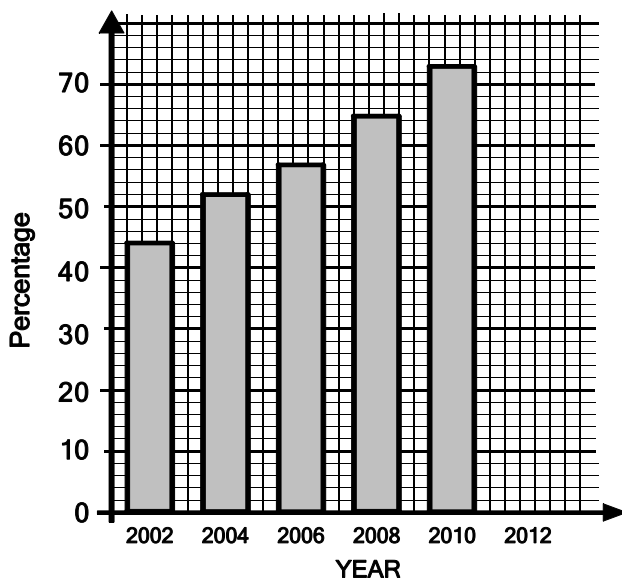


Was £109.49

NOW £94.99

The price reduction is _____

Households with Internet Access



Do you have access to the internet at home ?

This question is asked in a survey every two years. The **bar chart** shows the **percentage** of households that answered 'yes'.

[1] Each small division on the vertical axis represents _____ % of households.



In 2002, **44 %** of households had internet access.

[2] In 2004, _____ of households had internet access.

In 2006, _____ of households had internet access.

[3] What percentage of households **did not** have internet access in **2008** ? _____

[4] **Estimate** the percentage of households with internet access in 2009. _____



[5] By _____ over **half** of all households had

internet access and this had increased to nearly three quarters in _____

The smallest **increase** in internet access was between _____ and _____



Write the missing years in these sentences.

[6] Use your own words to **describe** what the bar chart shows about the percentage of households with internet access.

[7] What might the chart look for **2012** ? Draw the bar for **2012** on the chart.

Using Averages

DH9

An average is a number that **represents** a set of data.

The three types of average are **mean**, **mode** and **median**.



The mean shares the values out equally.



The mode is the number that occurs most often.



The median is a value in the middle.

The manufacturers of **CHOCO** bars want the bars to weigh around 70g.

It is impossible to make every bar weigh **exactly** 70g. They regularly take **samples** of 10 bars to see how well their machines are working.



The table shows the weights of samples from machines A and B.

[1] Work out the **range** for each machine.

Machine A _____

Machine B _____

[2] What is the **modal** weight of bars ?

Machine A _____

Machine B _____

[3] Calculate the **mean** weight of each sample.

Machine A _____

Machine B _____

Weight of bars in grams	
Machine A	Machine B
70.2	70.0
70.1	69.6
70.4	70.0
69.8	70.0
70.0	69.9
70.1	70.1
70.3	70.5
70.1	70.1
69.9	70.2
70.1	69.9

[4] Find the **median** weight of the bars from each machine.

Machine A _____

Machine B _____

The median for machine A is _____ and the median for machine B is _____

[5] What do your answers tell you about how each machine is performing ?

Write about half a page commenting on all four pairs of answers



Which uses too much chocolate ?



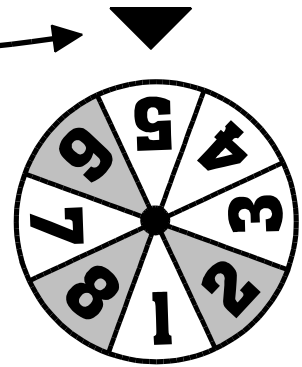
Which machine is more reliable ?

Spinners

Prb8

[1] This spinner is **equally likely** to stop at any number.

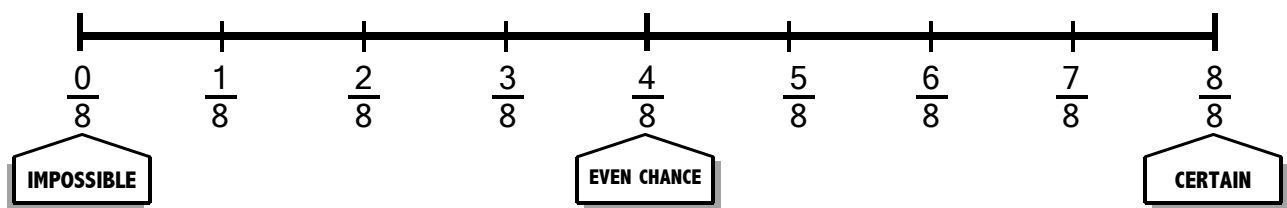
This time the spinner has stopped at 5



Draw arrows to mark the **probability** of these events on the scale.

- (A) The spinner stops at 3.
- (B) The spinner stops at a **white** sector.
- (C) The spinner stops at 1 or 6.
- (D) The spinner stops at a number less than 10.
- (E) The spinner stops at an **even** number.
- (F) The spinner stops at 9.
- (G) The spinner stops at a **grey** sector.
- (H) The spinner stops at a number more than 2.
- (I) The spinner doesn't stop at 5.

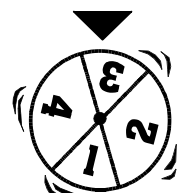
Your arrows should all point at different fractions.

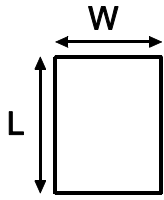


[2] The spinner is spun 400 times.
How many times would you expect it to stop at 2? _____

[3] The probability of this spinner stopping at 2 is $\frac{1}{4}$

Explain why Kay is wrong.





The formula for working out the perimeter of a rectangle is

$$P = 2(W + L)$$

← This means $2 \times (W + L)$

First add W and L

Then multiply by 2

[1] Substitute these values into the formula.

If $W = 7$ and $L = 9$ then $P = \underline{2 \times (7 + 9) = 2 \times 16 =}$

If $W = 12$ and $L = 16$ then $P = \underline{\hspace{2cm}}$

If $W = 3.5$ and $L = 4.7$ then $P = \underline{\hspace{2cm}}$

If $W = 52$ and $L = 80$ then $P = \underline{\hspace{2cm}}$

[2] Find values for W and L that make $P = 30$ $W = \underline{\hspace{1cm}}$ $L = \underline{\hspace{1cm}}$

[3] Work out the value of these expressions when $n = 9$.

$5(n - 2) = \underline{5 \times (9 - 2) = 5 \times 7 =}$

$8(n + 3) = \underline{\hspace{2cm}}$

$4(10 - n) = \underline{\hspace{2cm}}$

$3(2n + 1) = \underline{\hspace{2cm}}$

Do the bits in brackets first.



IMPORTANT These expressions mean the same thing.



Add 4 to y then multiply the answer by 3

$$3 \times (y + 4)$$

$$(y + 4) \times 3$$

$$3(y + 4)$$

This is the **BEST** WAY to write it - multiplying number at the front with no multiplication sign.

[4] Use brackets to write these algebraic expressions.

Add x and y then times the answer by 6

Start with R . Take away 5. Multiply the answer by 4.

Add 2 to m then multiply the answer by 10

Substitution into Formulas

Alg2.9

[1] **Substitute** each value of x into the formula to calculate the value of y .

Work out the calculations in the brackets first.

Finish the calculations.



If $x = -5$ and $y = 4 + 3x$ then $y = 4 + (3 \times -5) = 4 + -15 =$ _____

If $x = -9$ and $y = 3 - 2x$ then $y = 3 - (2 \times -9) = 3 - -18 =$ _____

If $x = -3$ and $y = 6 - 4x$ then _____

If $x = -1$ and $y = 1 + 8x$ then _____

If $x = -4$ and $y = 10 - x^2$ then _____

[2] Use the formulas to calculate the values of v and s when

$$v = u + at$$

$$s = ut + \frac{1}{2}at^2$$

These formulas are used to calculate speeds and distances.



$u = 12, a = -3, t = 6$ _____

$u = -5, a = -4, t = 2$ _____

[3] $d = b^2 - 4ac$ Use this formula to work out the value of d when a, b and c have the values shown.

When $a = -1, b = 2$ and $c = 5$ _____

When $a = 2, b = 5$ and $c = -3$ _____

When $a = 3, b = -6$ and $c = 2$ _____

When $a = -4, b = -1$ and $c = -5$ _____

When $a = -7, b = -4$ and $c = -1$ _____

Choosing a New Kit

FC 13

Henshaw Harriers are buying a new football kit.
The players can pick any mixture of these colours.

Example

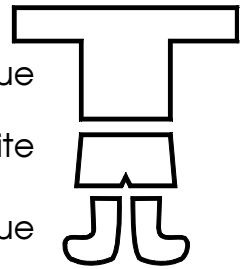


I'd like a red shirt,
white shorts and
red socks.

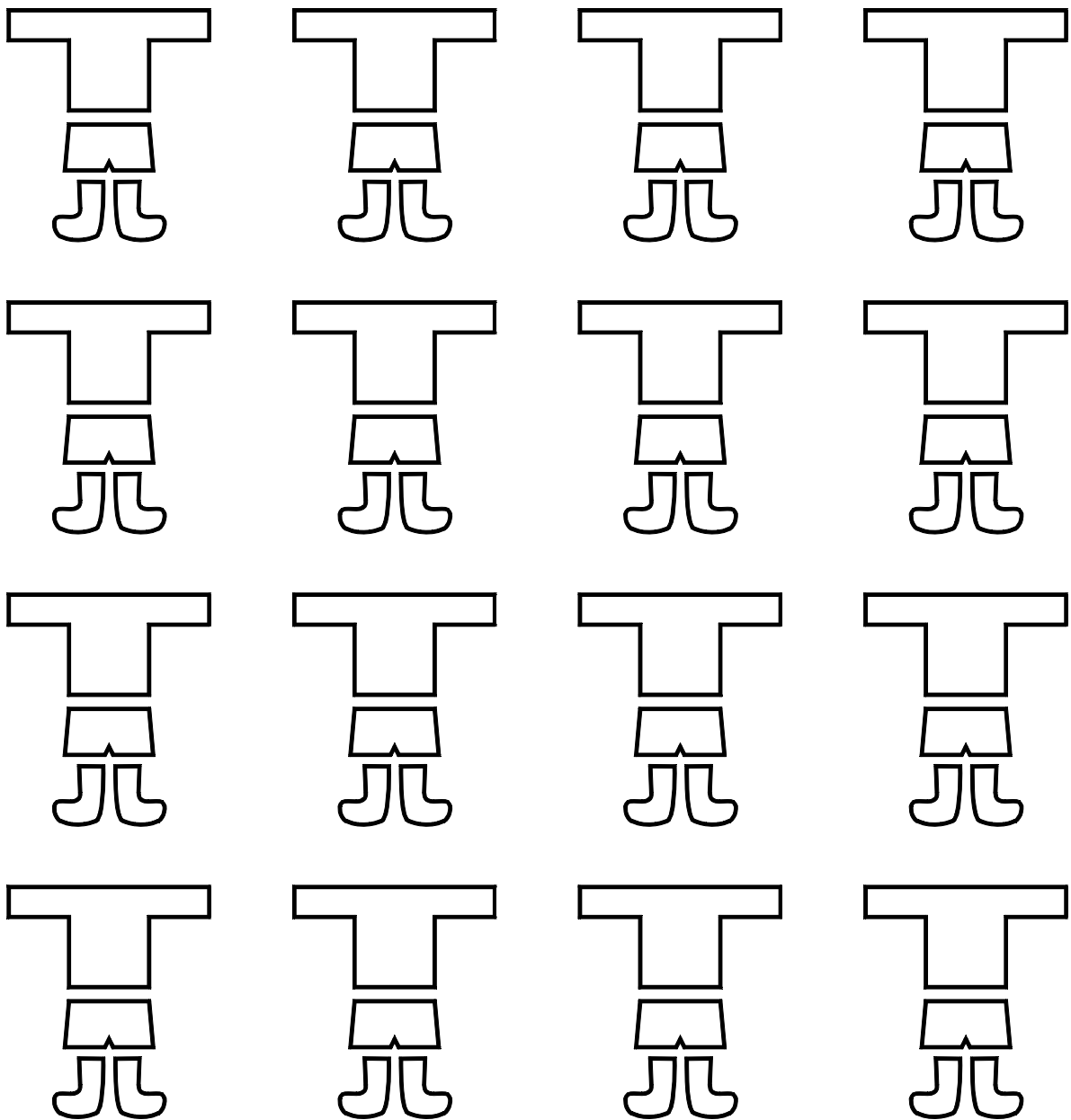
Shirt red or blue

Shorts red, blue or white

Socks red or blue



Colour in these kits to show all the possible kits the team could choose.
You will not need all the pictures.



Check carefully that you haven't done the same design twice.

How many different designs are there ? _____

Which design do you like best ? Put a tick by your favourite.

