#### **KS2 Mathematics Above Expected Standard**





#### Name

Soon after your Easter holiday you will be sitting your KS2 SATs. After all your hard work this year, we do not want you to forget all that work over the break!

If you do a little maths every day it will keep things fresh in your mind for when you come back to school. By using this pack, you will be using the key skills you have been rehearsing all year. It is called 10-4-10 '10 minutes for 10 days'.

Every day there are some arithmetic questions and a couple of SATs style problems to solve. Complete one double page each day.

Try to do as much of the booklet as you can, remember it should take around 10 minutes each day. If you struggle with anything, make sure you ask your teacher when you return to school.

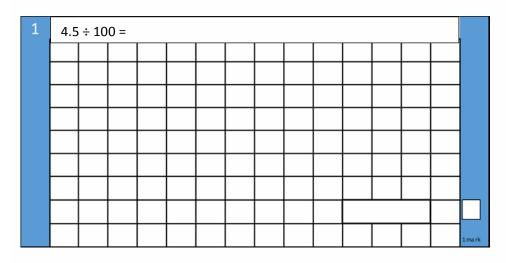
You do not need a calculator for any of these maths questions.

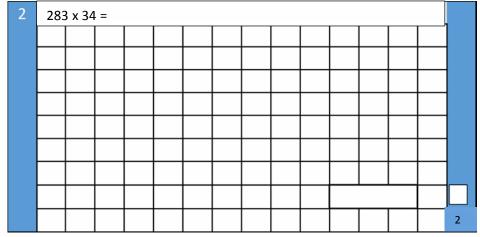
#### Good luck!



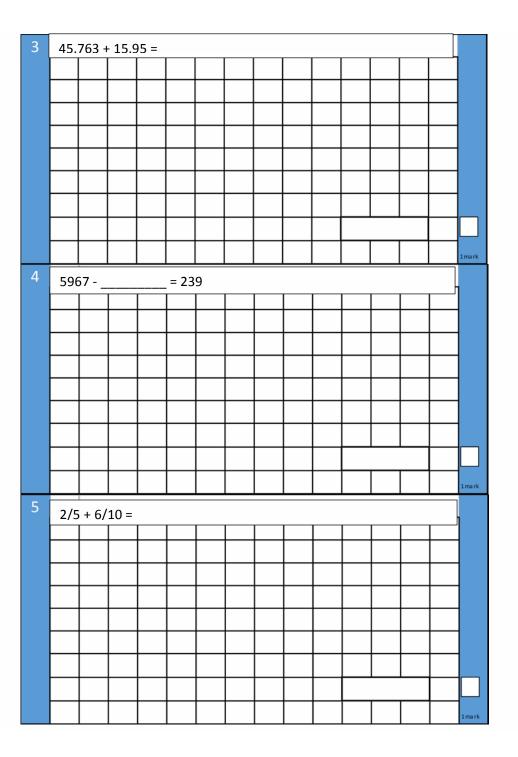














### **DAY 1 – Reasoning Questions**

1.

What is the smallest whole number that when rounded to the nearest 100 has an answer of 300?

\_\_\_\_\_ (1 mark)

2.

Scott has -£16 in his bank account. Every week he gets paid £56 and he spends £63. How much will Scott have in his account after 2 weeks?

\_\_\_\_\_ (1 mark)

3.

7 0 2 9 1

Use four of these digit cards to make a four digit multiple of 10 that is less than 2000.

\_\_\_\_\_ (1 mark)

4.

What do the Roman Numerals CLXXV111 represent?

\_\_\_\_\_ (1 mark)

200

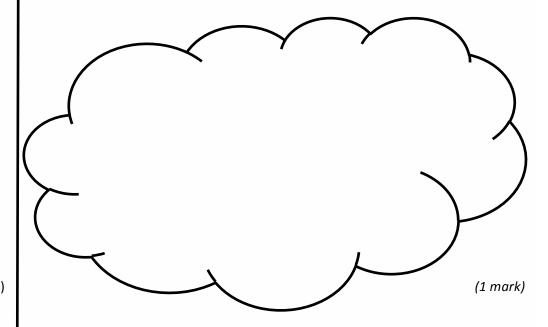
5.

This sequence of numbers goes up by 40 each time.

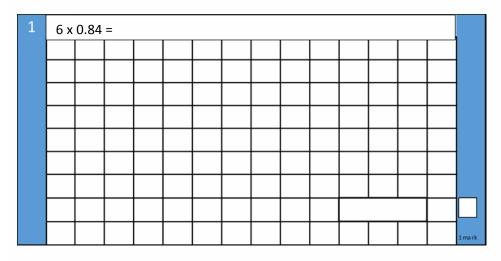
40 80 120 160

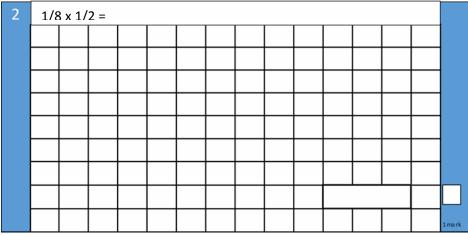
This sequence continues.

Will the number 2140 be in the sequence? Circle Yes or No. Explain how you know.

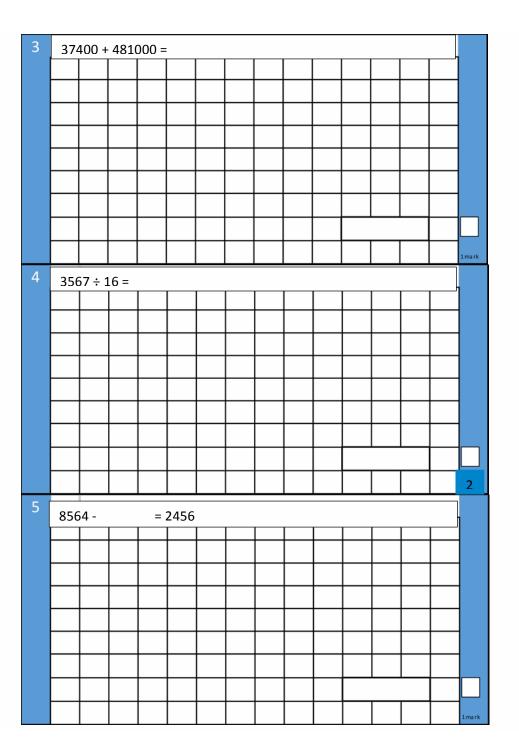










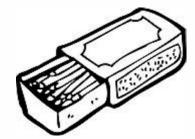




#### **DAY 2 – Reasoning Questions**

1.

A box contains 330 matches and weighs 45 grams. The empty box weighs 12 grams. Calculate the weight of one match.



\_\_\_\_\_(1 mark)

2.

Jimmy buys 2.64m of rope. Sally buys 76.4cm more rope than Jimmy. What is the length of Sally's rope in m?

\_\_\_\_\_ (1 mark)

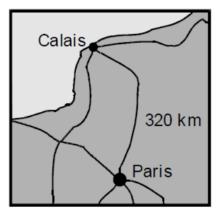
3.

A swimming pool is filled with water at a rate of 13.592 litres every 150 seconds. Calculate the amount of water that goes into the pool in 12 minutes.

\_\_\_\_\_ (1 mark)

4.

Here is a map of part of France.



The map shows that the distance from Calais to Paris is 320 kilometres.

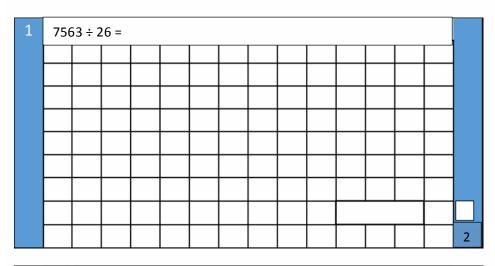
5 miles is approximately 8 kilometres. Use these facts to calculate the approximate distance in miles from Calais to Paris.

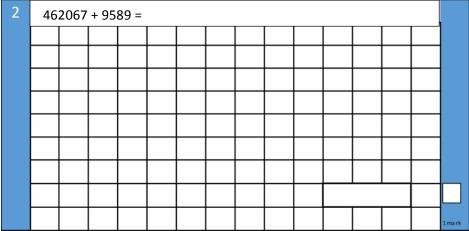
5.

5 miles  $\approx$  8 km. The distance between 2 cities is 565 miles. What is the distance in km?

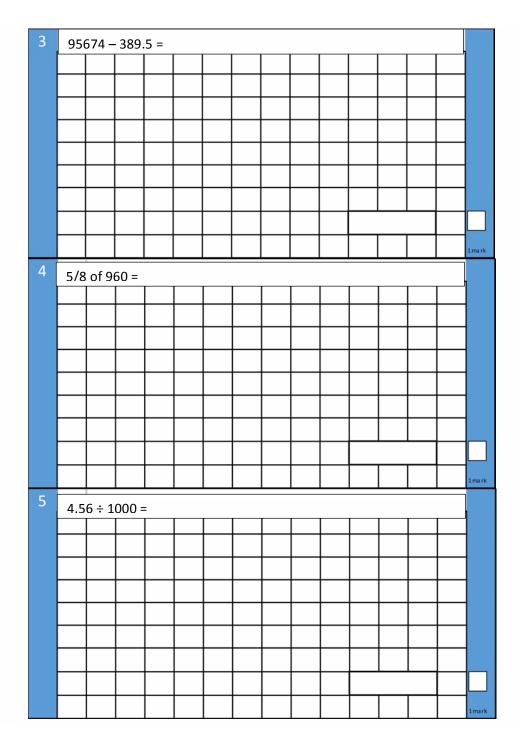
\_\_\_\_\_ (1 mark)













### **DAY 3 – Reasoning Questions**

1.

Put these fractions in order, starting with the largest.

$$\frac{2}{3}$$
  $\frac{7}{12}$   $\frac{5}{6}$   $\frac{5}{8}$ 

(1)

(1 mark)

2.

Tick ( $\checkmark$ ) any numbers that could be rounded to 17.6.

18.002

17.638

17.661

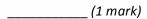
17.71

17.58

(1 mark)

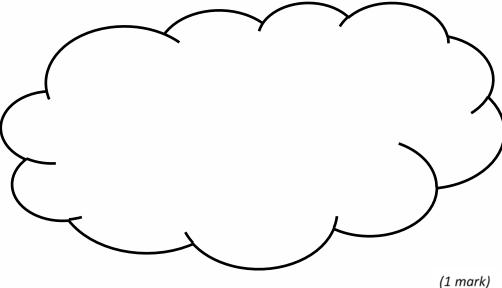
3.

David saves 35% of his pocket money. He gets £4 each week. How much does he save in 1 year?



4. A school canteen stocks five flavours of crisps. 2/5 are salt and vinegar, 1/8 are cheese and onion, 1/4 are prawn cocktail, 1/5 are ready salted and the rest are chicken flavour. The canteen has 60 bags of crisps. Is this correct?

Circle Yes or No. Explain your answer.

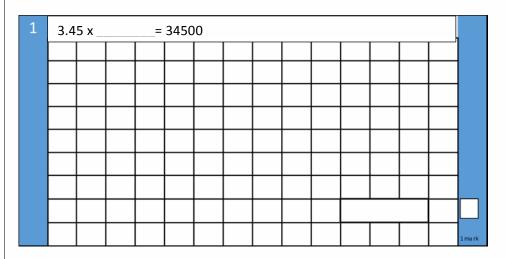


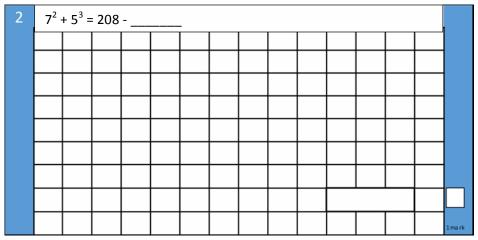
5.

Emily makes 250 grams of a snack mixture. 15% of the weight is raisings, 25% is banana chips and the rest is peanuts. How many grams of peanuts does she use?

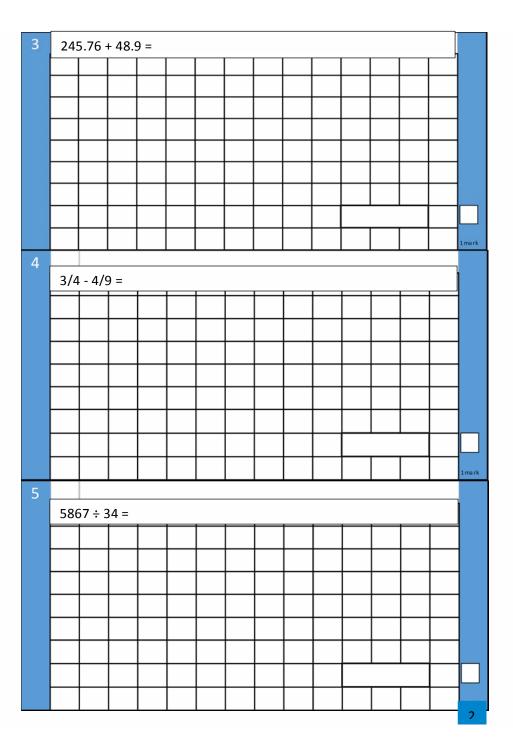
\_\_\_\_\_ (1 mark)













#### **DAY 4 – Reasoning Questions**

1.

Here are four statements.

For each statement put a tick  $(\checkmark)$  if it is possible. Put a cross (\*) if it is impossible.

A triangle can have 2 acute angles.

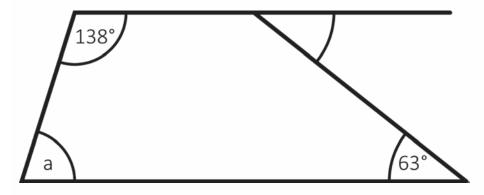
A triangle can have 2 obtuse angles.

A triangle can have 2 parallel sides.

A triangle can have 2 perpendicular sides.

(1 mark)

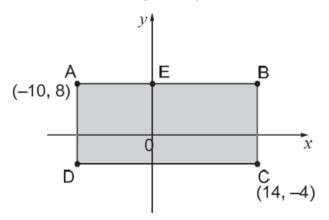
2. Find the size of angle a.



\_\_\_\_\_ (1 mark)

3.

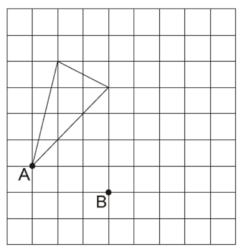
ABCD is a rectangle drawn on coordinate axes. The sides of the rectangle are parallel to the axes.



What are the coordinates of D and E?

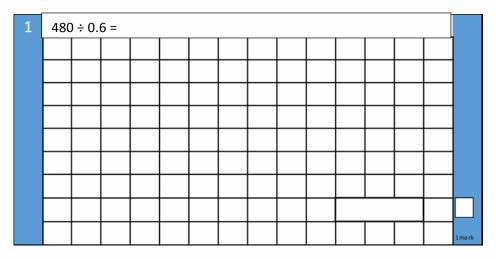
Here is a triangle on a square grid. The triangle is translated so that point A moves to point B.

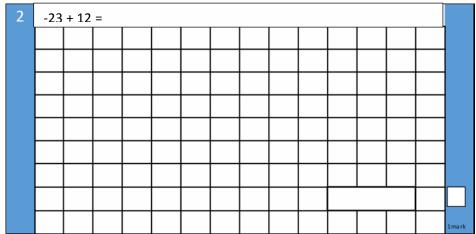
Draw the triangle in its new position. Use a ruler.



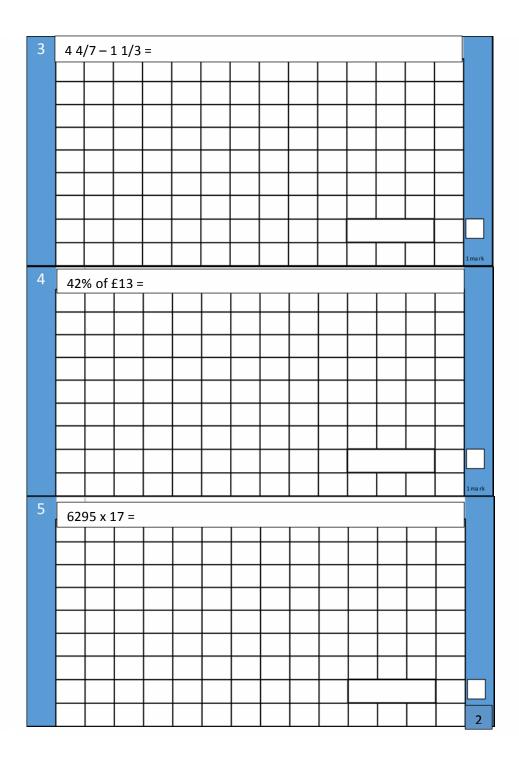
(1 mark)













#### **DAY 5 – Reasoning Questions**

1. Here is a recipe for cupcakes.

How many cakes have you made if you have used 450ml of milk?

Cupcakes (makes 12)				
210g flour				
160g butter				
150g sugar				
90ml milk				

\_\_\_\_\_(1 mark)

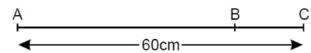
2. Mr Smith has a large box of fruit. For every apple in the box there are 3 bananas and 2 kiwis. Mr Smith has 54 pieces of fruit in total. How many of each fruit does he have?

apples bananas kiwis

(1 mark)

3.

The distance from A to B is three times as far as from B to C.

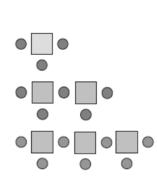


The distance from A to C is 60 centimetres. Calculate the distance from A to B.

\_\_\_\_\_(1 mark)

4.

Here is a sequence of patterns made from squares and circles.



Number of squares	Number of circles
1	3
2	5
3	7

The sequence continues in the same way. Calculate how many squares there will be in the pattern which has 25 circles.

(1	mark)
	- ,

5.

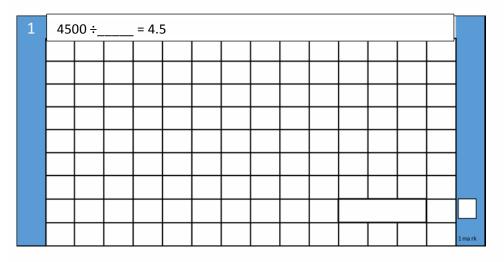
The prices of some orders from a newsagent are shown below:

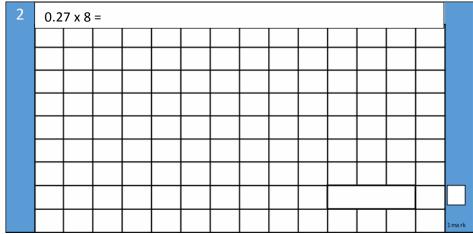
- 1 chocolate bar and 1 magazine cost £6
- 3 chocolate bars and 4 cans cost £16
- 1 magazine and 3 cans cost £5

How much will it cost in total to buy 5 of each item?

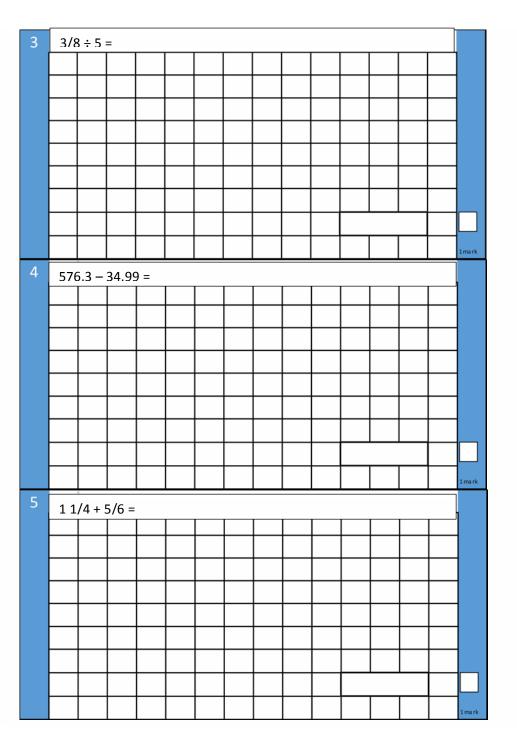
	(1 mark)
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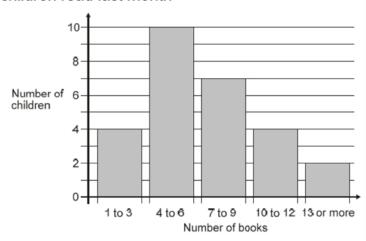




### **DAY 6 – Reasoning Questions**

#### 1.

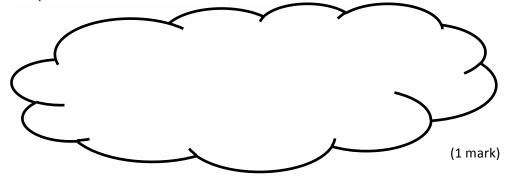
This chart shows the number of books some children read last month



How many children altogether read more than 9 books?

(1 mark)

7 children read 4 books. 1 child read 5 books. Lin says, 'That means 2 children read 6 books.' Explain how she can work this out from the chart.



2.

This pie chart shows how the 32 children in Class 6 best like their potatoes cooked.

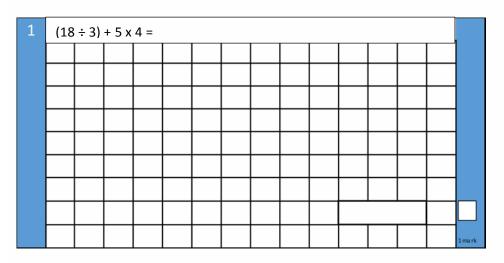
roast jacket chips

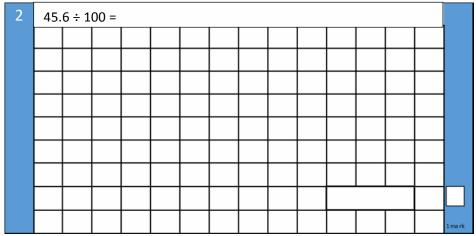
Look at the four statements below. For each statement put a tick (✓) if it is correct. Put a cross (×) if it is not correct.

10 children like chips best.	
25% of the children like mashed potatoes best.	
$\frac{1}{5}$ of the children like roast potatoes best.	
12 children like jacket potatoes best.	

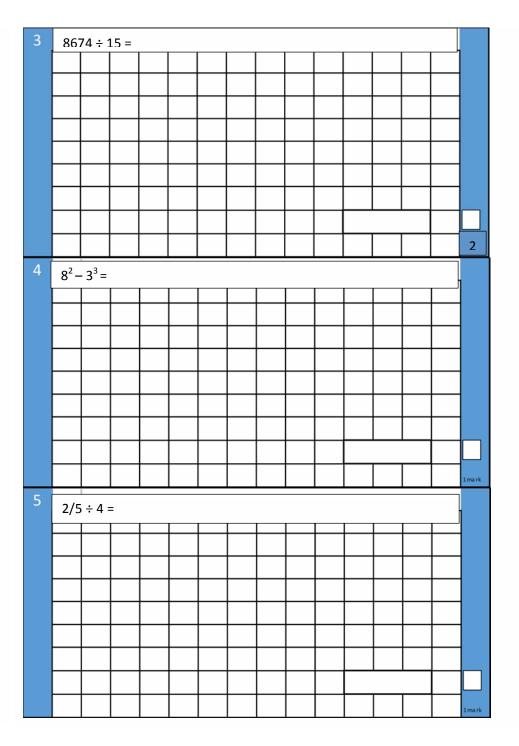
(1 mark)









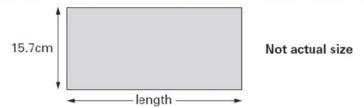




#### **DAY 7 – Reasoning Questions**

1.

Here is a rectangle with a width of 15.7 centimetres.



The perimeter of this rectangle is 85 centimetres. Calculate the length of the rectangle.

	1	mark
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2. A square has four sides. One of its sides measures 67mm. Work out its area and perimeter in cm.

3.

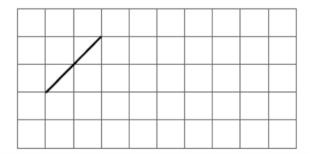
Steven started his bike ride at 9:42am. He cycled for 76 minutes, then stopped for 240 seconds before finishing exactly one hour later. What time did Steven finish his bike ride?

4.

This is a centimetre grid.

Draw 3 more lines to make a parallelogram with an area of 10 cm<sup>2</sup>.

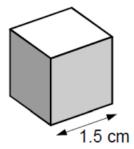
Use a ruler.



(1 mark)

5.

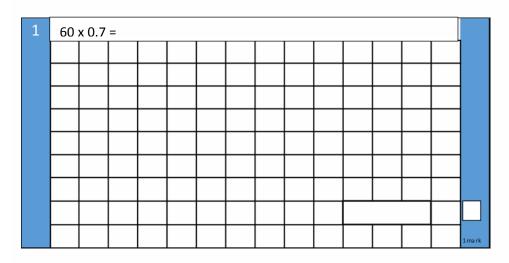
Amit has some small cubes.

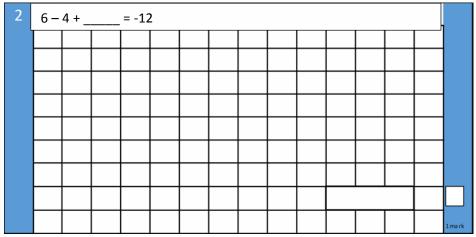


The edge of each cube is 1.5 centimetres. He makes a larger cube out of the small cubes. The volume of this larger cube is 216 cm<sup>3</sup>. How many small cubes does he use?

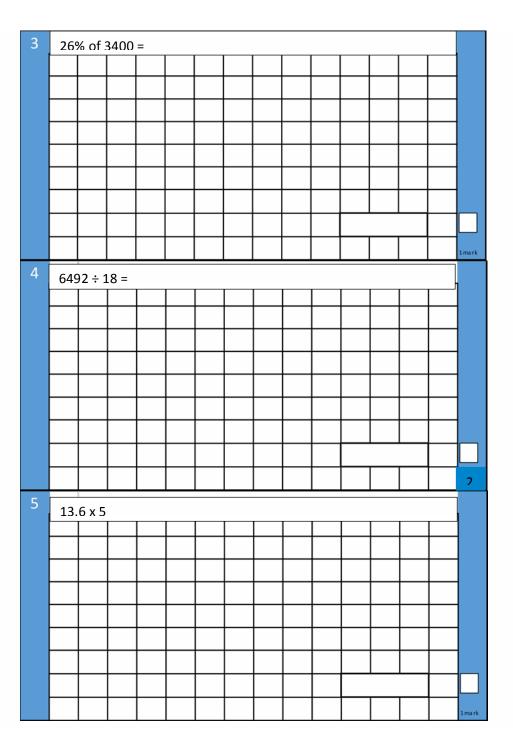
	(1 mark)
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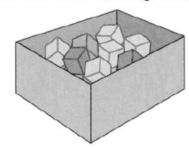
#### **DAY 8 – Reasoning Questions**

1.

250 000 people visited a theme park in one year. 15% of the people visited in April and 40% of the people visited in August. How many people visited the park in the rest of the year?

 	(	1	mark	)

There are 24 coloured cubes in a box.
Three-quarters of the cubes are red, four of the cubes are blue and the rest are green.



How many green cubes are in the box?

\_\_\_\_\_(1 mark)

One more blue cube is put into the box. What fraction of the cubes in the box are blue now?

	(	1	mari

3.

I pay £16.00 to travel to work each week. I work for 45 weeks each year. How much do I pay to travel to work each year? Show your working.

\_\_\_\_\_ (1 mark)

I could buy one season ticket that would let me travel for all 45 weeks. It would cost £630. How much is that per week?

\_\_\_\_\_ (1 mark)

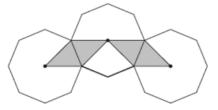
4.

Write in the missing numbers.

\_\_\_\_\_ (1 mark)

5.

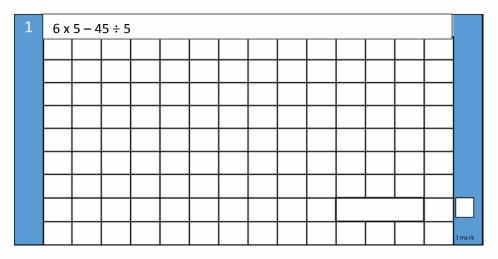
The diagram shows three regular octagons joined together. There is a dot at the centre of each one.

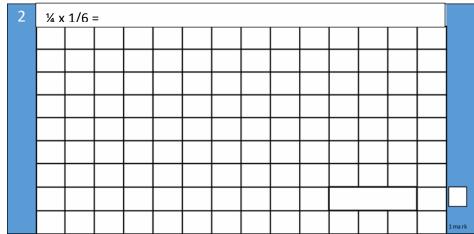


What fraction of the diagram is shaded?

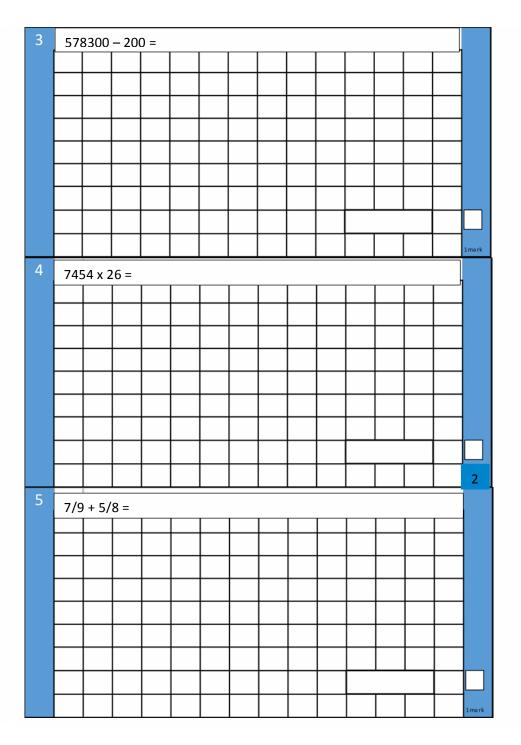
(1 mark)













### **DAY 9 – Reasoning Questions**

1.

Find two square numbers that total 45.

(1 mark)

2.

Write all the factors of 30 which are also factors of 20.

(1 mark)

Two whole numbers are each between 60 and 70. They multiply to make 4095.
Write in the missing numbers.

\_\_\_\_\_ (1 mark)

4.

Here are five number cards.



В

A and B stand for two different whole numbers.

The sum of all the numbers on all five cards is 30.

What could be the values of A and B?

 (1	mark,

5.

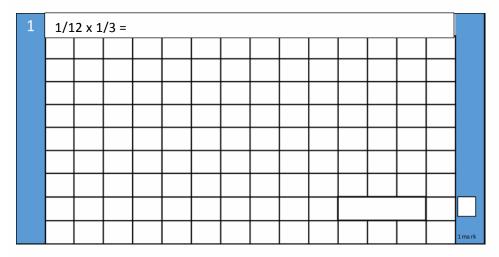
Ben thinks of a number.

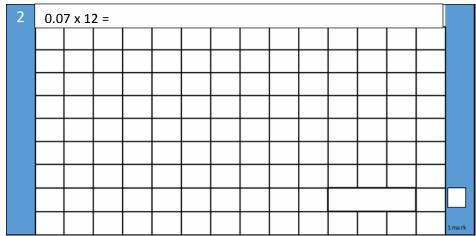
He adds half of the number to a quarter of the number. The result is 60.

What was the number Ben first thought of? Show your working.

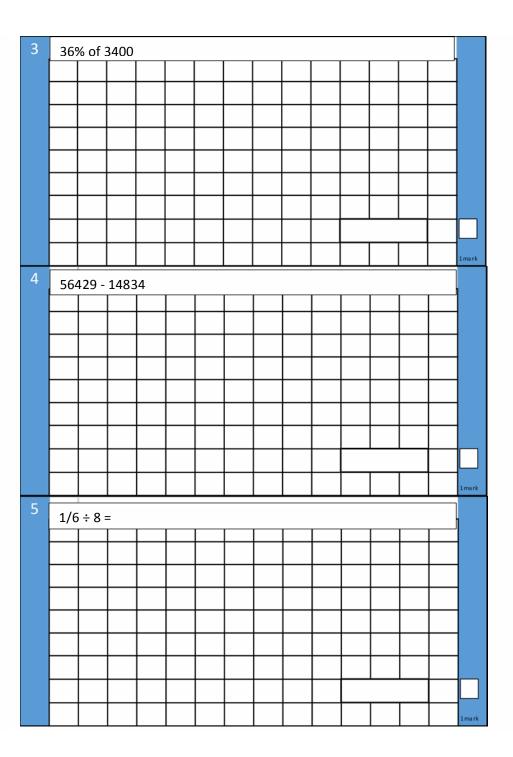
	(1 mark)
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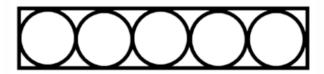




#### **DAY 10 – Reasoning Questions**

1. A circle has a diameter of 136cm.	What is the length of its
radius?	(1 mark)

2. The radius of one circle is 8.5cm. All the circles are the same size.

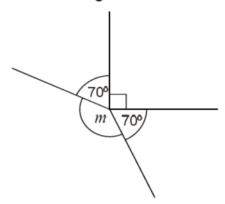


What are the dimensions of the rectangle?

Length \_\_\_\_\_ width \_\_\_\_ (1 mark)

3.

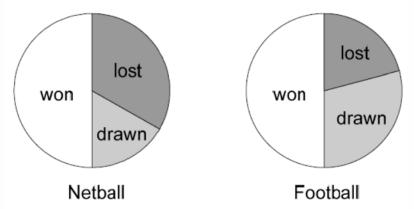
This diagram is not drawn accurately. Calculate the size of angle m.



(1 mark)

3.

The pie charts show the results of a school's netball and football matches.



The netball team played 30 games.

The football team played 24 games.

Estimate the percentage of games that the netball team lost.

am lost. \_\_\_\_\_(1 mark)

David says, 'The two teams won the same number of games'.

Is he correct? Circle Yes or No.

