

National Curriculum Tests

Key Stage 2

Mathematics

Paper 2: Reasoning

First Name						
Middle Name						
Last Name						
Date of Birth	Day		Month		Year	
School Name						

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Instructions

You **may not** use a calculator to answer any questions in this test.

Questions and answers

You have **40 minutes** to complete the test.

Follow the instructions for each question.

Work as quickly and as carefully as you can.

If you need to do working out, you can use the space around the question.

Some questions have a method box like this:

[illegible]

For these questions you may get a mark for showing your method.

If you cannot do one of the questions, **go on to the next one.**

You can come back to it later, if you have time.

If you finish before the end, **go back and check your work.**

Marks

The number under each line at the side of the pages tells you the maximum number of marks for each question.

1. Mica put these five numbers in their correct places on a number line.

811 797 804 855 755






Write the number **closest** to 800

1 mark

Write the number **furthest** from 800

1 mark

2.

A	B	C	D	E
				
£223,400	£224,040	£224,300	£191,500	£199,050

Put the classic cars in order of price starting with the **highest price**.

One has been done for you.

_____ **B** _____

Highest

1 mark

3.

Write the three missing digits to make the **addition** correct.

$$\begin{array}{r}
 1 \quad 6 \quad \square \\
 + \quad 7 \quad \square \quad 5 \\
 \hline
 \square \quad 5 \quad 3
 \end{array}$$

2 marks

4. This table shows the number of people living in various towns in England.

Town	Population
Bedford	81,638
Carlton	52,597
Dover	35,065
Formby	23,878
Telford	123,781

What is the **total** of the numbers of people living in Formby and in Telford?

1 mark

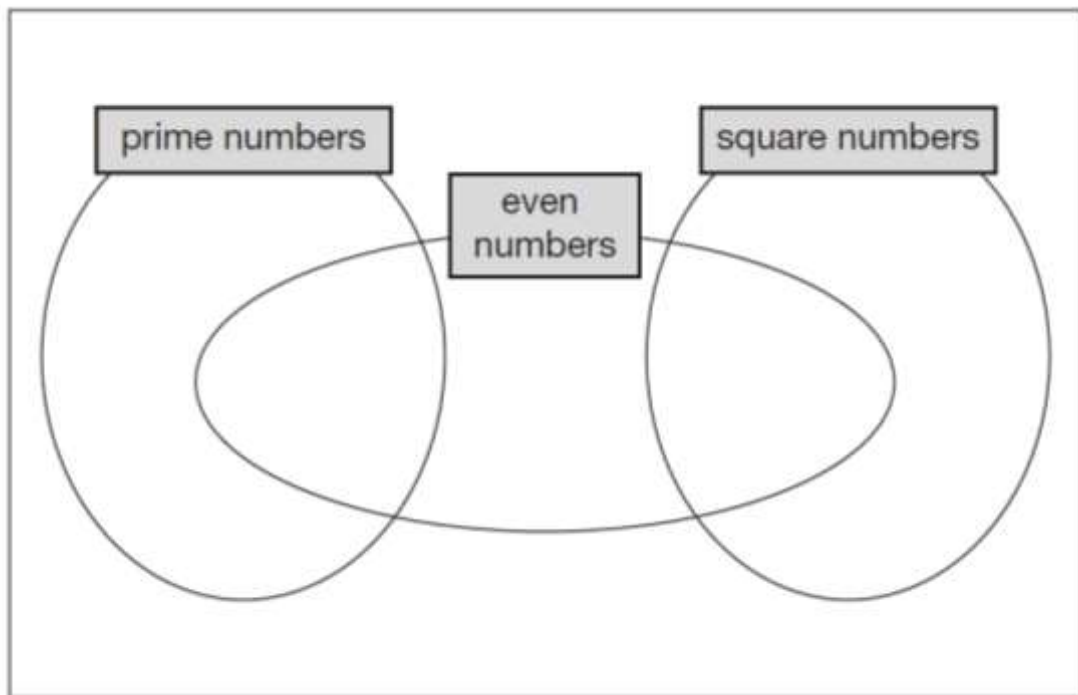
What is the difference between the numbers of people living in Bedford and Dover?

1 mark

5.

Write each number in its correct place on the diagram.

25 29 30 36

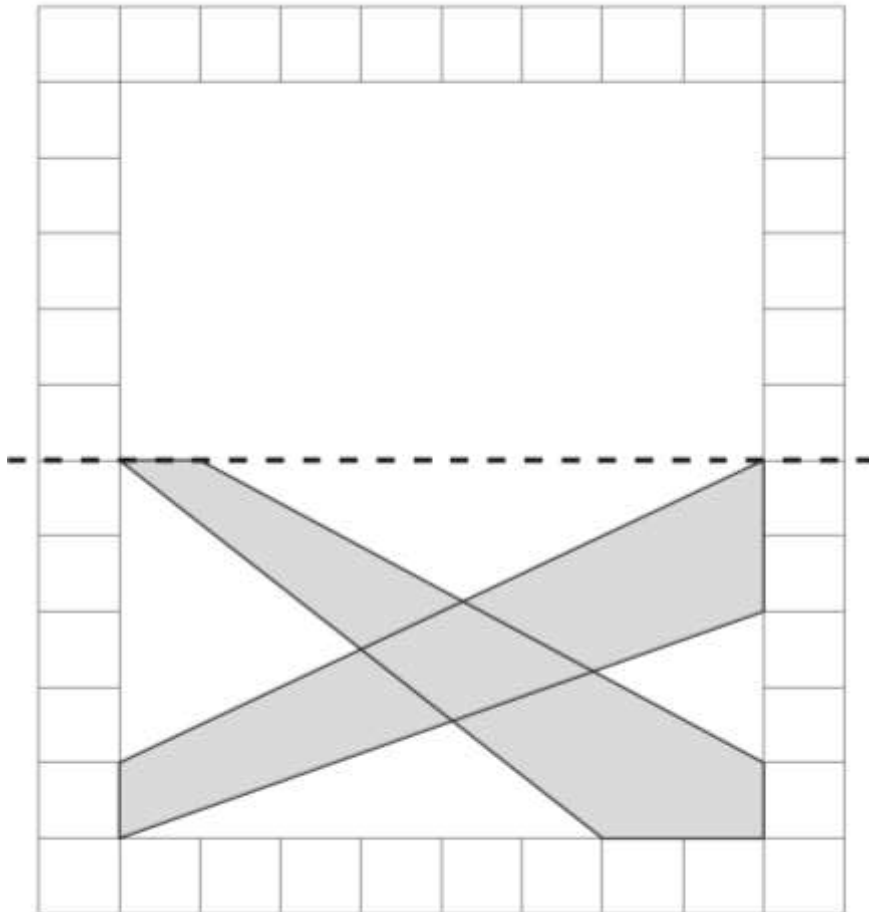


2 marks

6. This diagram shows a shaded inside a border of squares.

Draw the reflection of the shape in the mirror line.

Use a ruler.



1 mark

7.

Circle the 2 fractions that are equivalent to $\frac{2}{3}$

$\frac{1}{6}$ $\frac{2}{9}$ $\frac{4}{6}$ $\frac{8}{12}$ $\frac{10}{14}$

2 marks

8.

Circle two numbers that add together to equal **0.55**

0.35 0.5 0.25 0.4 0.05

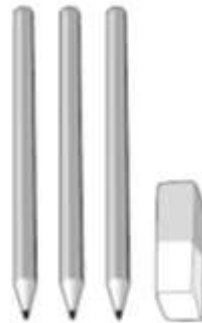
1 mark

9.

6 pencils cost **£1.98**



3 pencils and 1 rubber cost **£1.17**



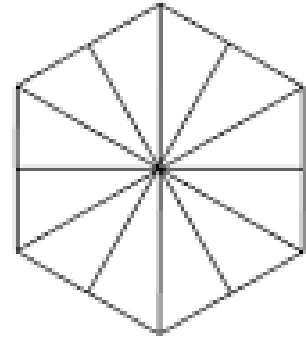
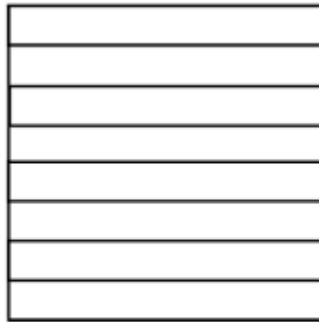
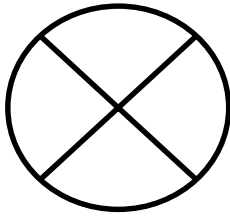
What is the cost of 1 rubber?

Show your method

2 marks

10. Each diagram below is divided into equal sections.

Shade three-quarters of each diagram.



2 marks

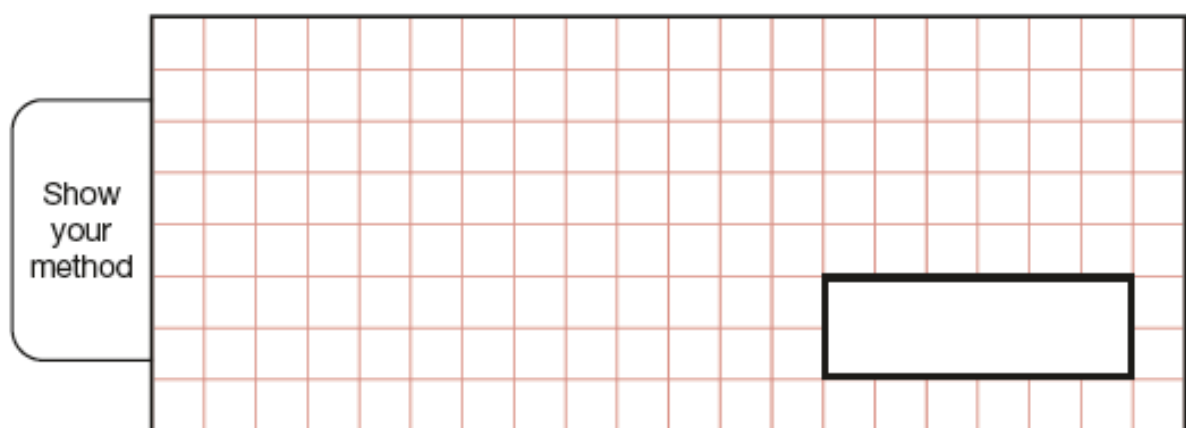
11. A packet contains 2.5kg of oats.



Every day Joanna uses 50g of oats to make porridge.

How many days does the packet of oats last?

Show your method



2 marks

12. $n = 27$

What is $2n + 13$?

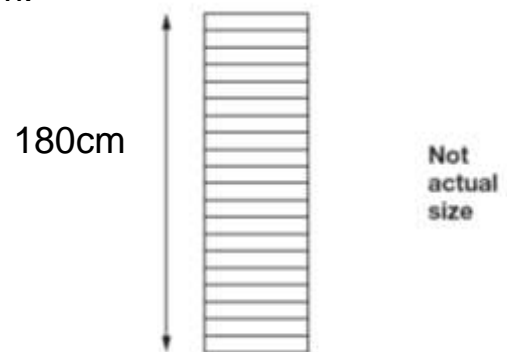
1 mark

$2q + 8 = 100$

Work out the value of q .

1 mark

13. A stack of 20 identical boxes is 180cm.



Helen takes seven boxes off the top.

How tall is the stack now?

Show
your
method

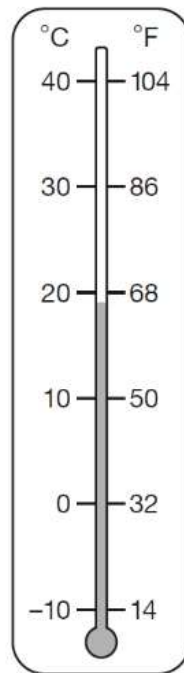
2 marks

14. Circle the common multiples of 3 and 8 in the list below:-

3 8 16 12 24 32 42 48 52

1 mark

15. This thermometer shows the temperature in both °C and °F



Work out what **35°C** is in °F.

Show
your
method

°F

2 marks

16.

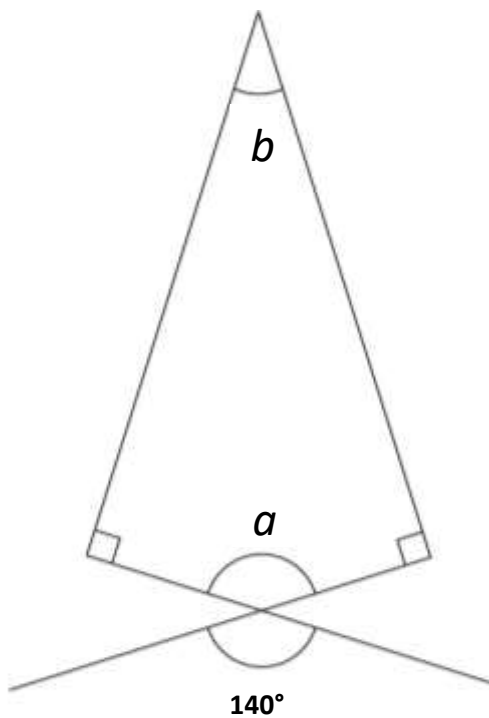
Write the number that is seven less than **ten million**.

1 mark

Write the number that is two hundred thousand less than **eight million**.

1 mark

17. Calculate the size of the angles ***a*** and ***b*** in this diagram.



Not to scale

$a =$

1 mark

$b =$

1 mark

18. Write the missing number.

$$90 \div ? = 4.5$$

1 mark

19. Miss Mills is making jam to sell at the school fair.

Raspberries cost £6.50 per kg.

Sugar costs 87p per bag.

10 glass jars cost £7.80

She uses 12kg of raspberries and 10 kg of sugar to make 20 jars full of jam.

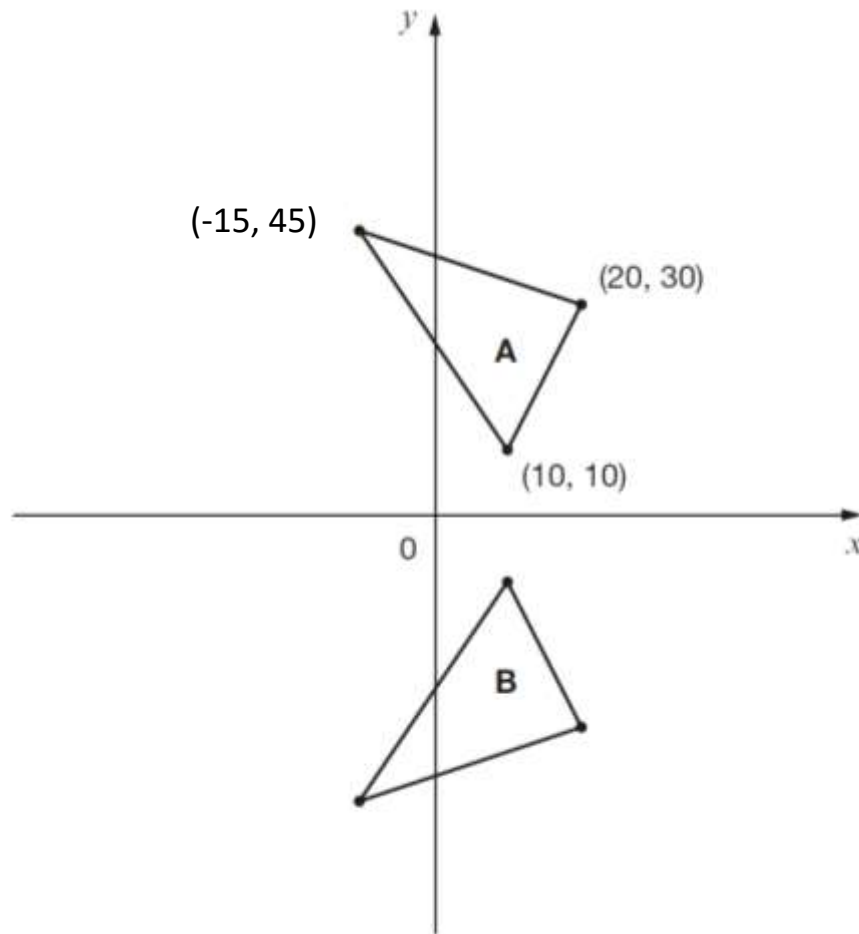
Calculate the total cost to make 20 jars full of jam.

Show
your
method

£

3 marks

20. Here are two triangles drawn on coordinate axes.



Triangle B is a reflection of triangle A in the x axis

Two of the new vertices of triangle B are $(10, -10)$ and $(20, -30)$

What are the coordinates of the **third** vertex of triangle B?

(,)

1 mark