

2016 national curriculum tests

Key stage 2

Mathematics

Paper 2: reasoning

First name						
Middle name						
Last name						
Date of birth	Day		Month		Year	
School name						
DfE number						



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1

Ali puts these five numbers in their correct places on a number line.

511

499

502

555

455

Write the number **closest** to 500

499

1 mark

Write the number **furthest** from 500


555

1 mark



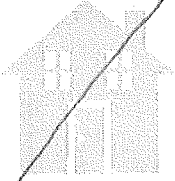
2

A




£135,300

B




£119,125

C




£130,500

D



£131,500

E



£91,500

Put these houses in order of price starting with the **lowest price**.

One has been done for you.

E B C D A
lowest

1 mark



3

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

$$\begin{array}{r} 15\boxed{1} \\ + 4\boxed{6}4 \\ \hline \boxed{6}15 \\ 1 \end{array}$$

2 marks



5

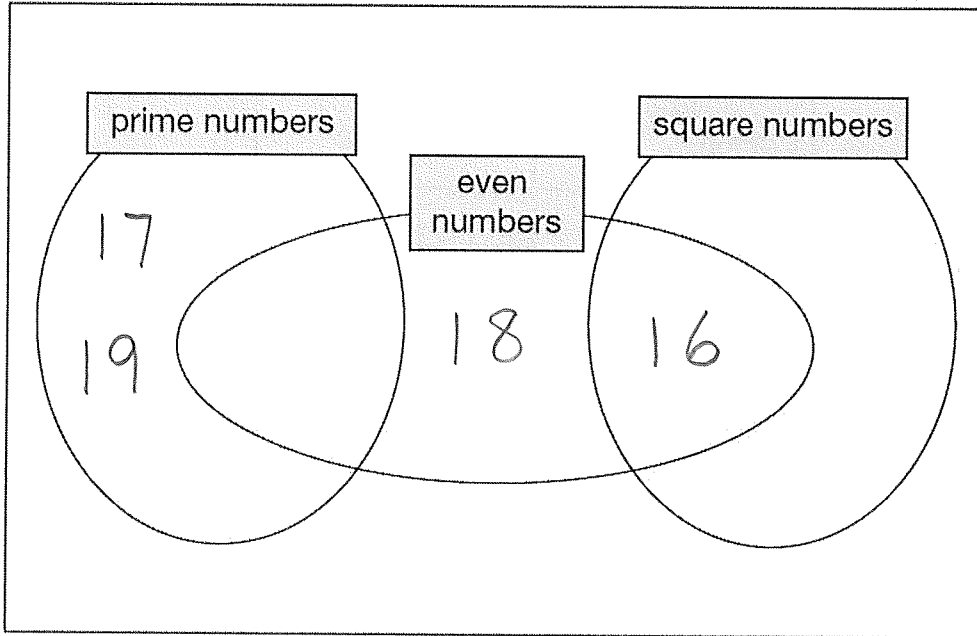
Write each number in its correct place on the diagram.

16
e s

17
p

18
e

19
p



2 marks

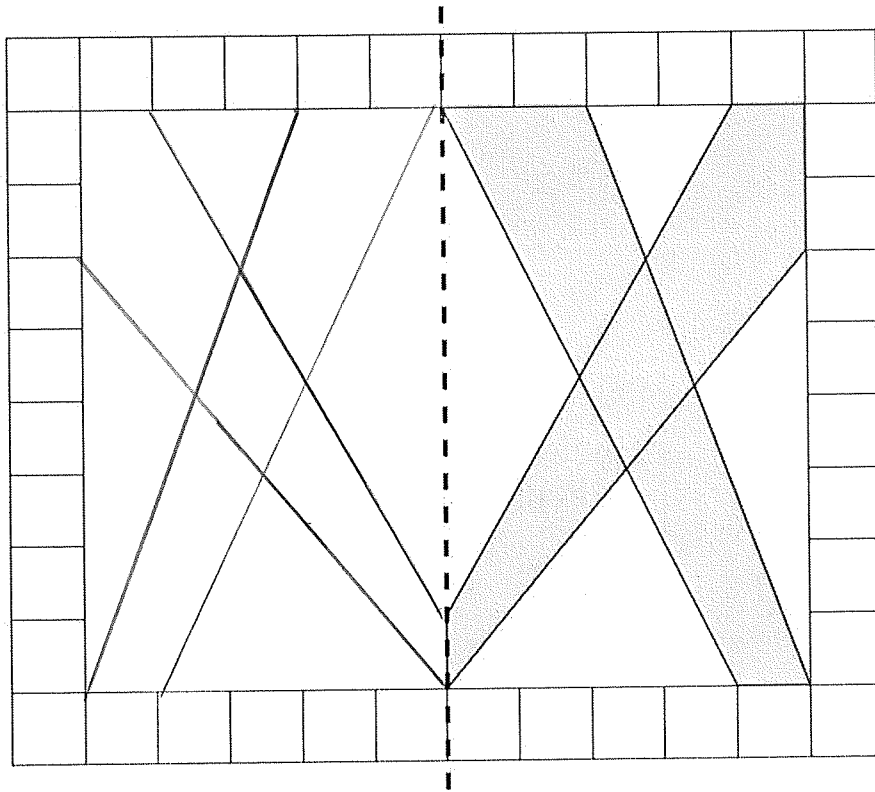


6

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

Draw the reflection of the shape in the mirror line.

Use a ruler.



mirror line

1 mark



7

Write the two missing values to make these equivalent fractions correct.

$$\frac{\boxed{2}}{3} \stackrel{\div 4}{=} \frac{8}{12} \stackrel{\div 2}{=} \frac{4}{\boxed{6}}$$

1 mark

1 mark

8

Circle two numbers that add together to equal 0.25

0.05

0.23

0.2

0.5

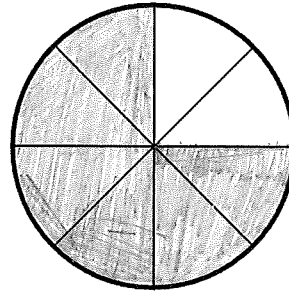
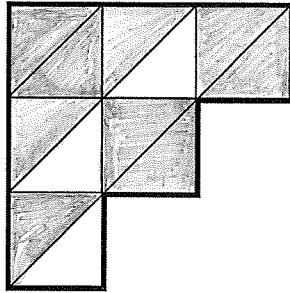
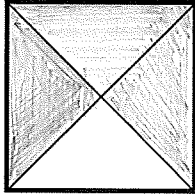
1 mark



10

Each diagram below is divided into equal sections.

Shade three-quarters of each diagram.



2 marks



12

$n = 22$

What is $2n + 9$?

$2n = 44$

$44 + 9 = 53$

53

1 mark

$2q + 4 = 100$

Work out the value of q .

$100 - 4 = 96$

$$\begin{array}{r} 48 \\ 2 \overline{)96} \end{array}$$

 $q =$

48

1 mark



14

Write **all** the common multiples of 3 and 8 that are **less than 50**

24 48

1 mark

3	30	8
6	33	16
9	36	(24)
12	39	32
15	42	40
18	45	(48)
21	(48)	
(24)		
27		



16Write the number that is five less than **ten million**.

$$\begin{array}{r}
 0999999 \\
 10000000 \\
 - 5 \\
 \hline
 9999995
 \end{array}$$

9 999 995

1 mark

Write the number that is one hundred thousand less than **six million**.

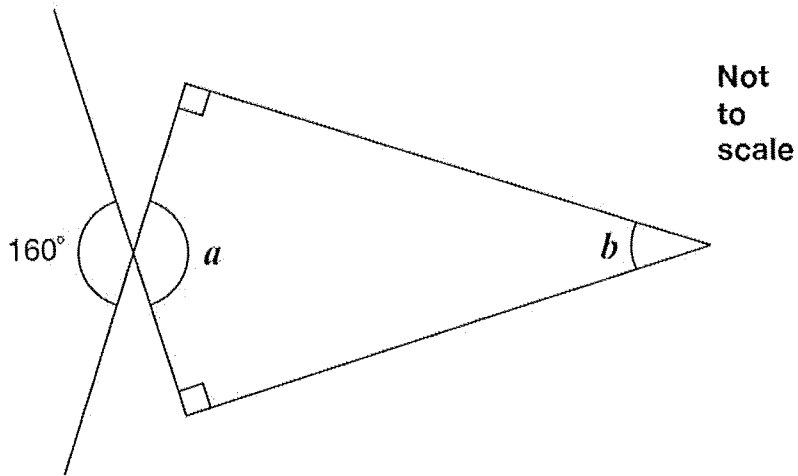
$$\begin{array}{r}
 51000000 \\
 6000000 \\
 - 100000 \\
 \hline
 5900000
 \end{array}$$

5 900 000

1 mark



17

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

$$\begin{array}{r}
 160 \\
 + 90 \\
 \hline
 250 \\
 \hline
 340 \\
 2
 \end{array}$$

$$\begin{array}{r}
 360 \\
 - 340 \\
 \hline
 20
 \end{array}$$

$$a = \boxed{160^\circ}$$

1 mark

$$b = \boxed{20^\circ}$$

1 mark

18

Write the missing number.

$$70 \div \boxed{20} = 3.5$$

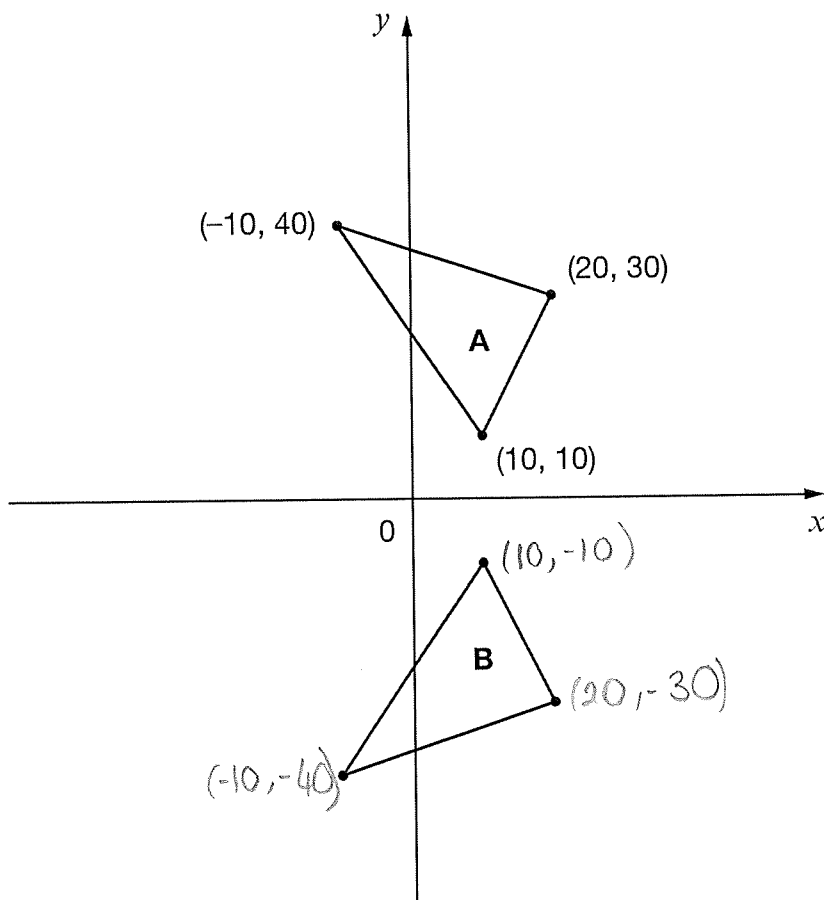
1 mark

$$\begin{array}{l}
 7 \div 2 = 3.5 \\
 \text{so } 70 \div 20 = 3.5
 \end{array}$$



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?

$(-10, -40)$

1 mark



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2016 key stage 2 mathematics

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