



KEY STAGE 2
MATHEMATICS

SET A

PAPER 2 (REASONING)



No Calculators



40 Minutes

First Name	
Last Name	

Total Marks	35
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1. Put the correct numbers in the boxes provided.

One has been done for you.

170 $\xrightarrow{\text{is 50 more than}}$ 120

 $\xleftarrow{\text{is 50 more than}}$ 190

 212 $\xrightarrow{\text{is 50 more than}}$

Marks

2. A pack of paper contains 300 sheets.

8 children take 7 sheets **each**.

How many sheets are left in the pack?

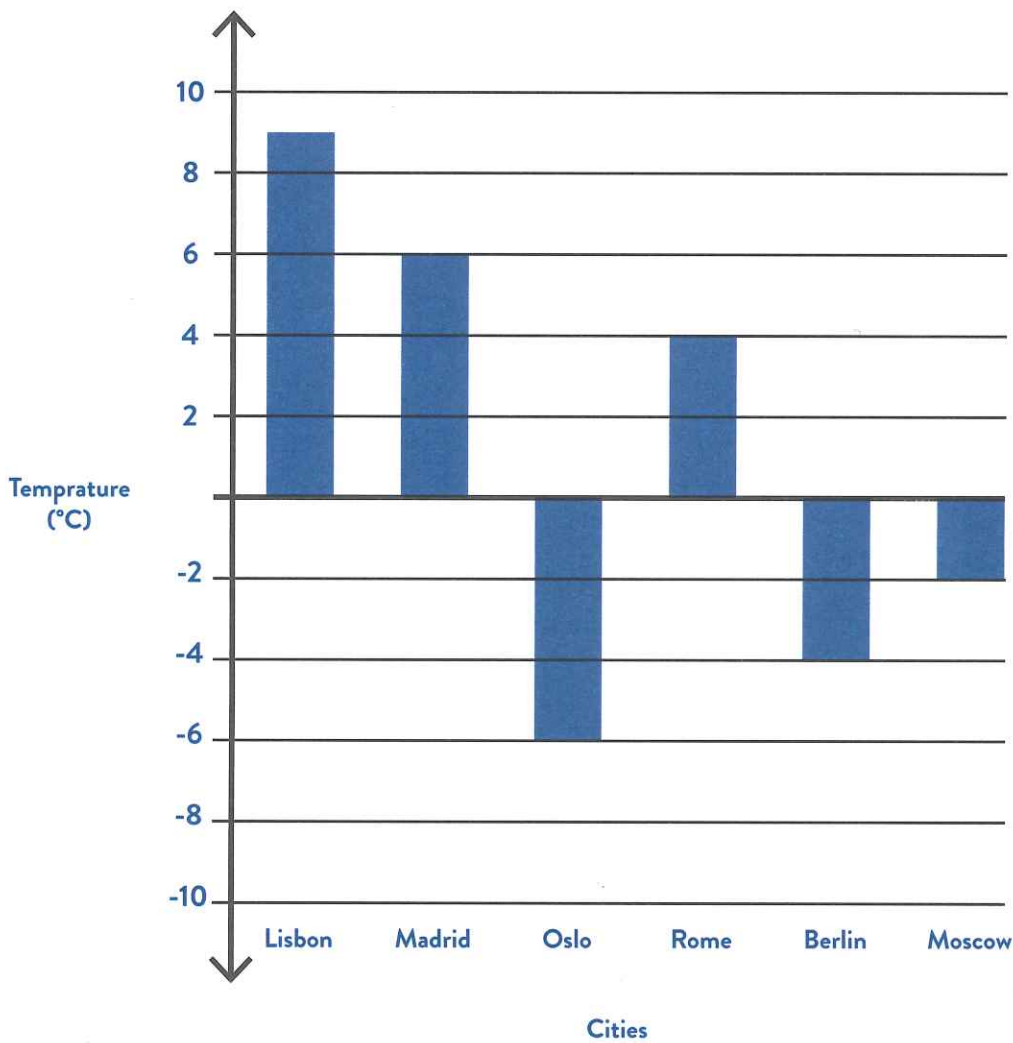
Show your working.



sheets

3. This graph shows the temperature in six cities on one day.

Marks



Which city was 6 °C warmer than Moscow?

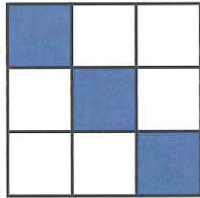


What was the **difference** in temperature between Moscow and Berlin?

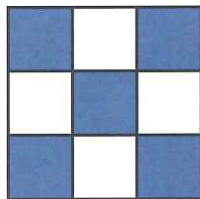

 °C

4. Connect each shape with its equivalent fraction.

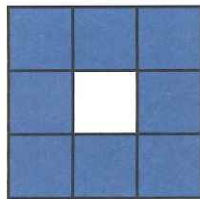
One has been done for you.



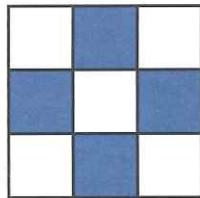
$$\frac{8}{9}$$



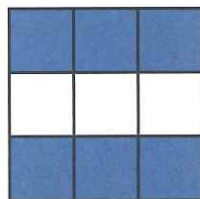
$$\frac{5}{9}$$



$$\frac{2}{3}$$



$$\frac{1}{3}$$



$$\frac{4}{9}$$

Marks

12

5. What is 567 minutes in hours and minutes?



hours
minutes

Marks

/1

6. John arrives for a meeting at eight minutes past ten. He is 13 minutes **late**.

What time was the meeting due to **start**?



/1

7. In the circles below, write a value that **belongs** to each set.

One has been done for you.



numbers from 7 to 49
a factor of 24



numbers from 51 to 99
a multiple of 25

numbers from 5 to 10
a factor of 12
6



numbers from 101 to 200
a multiple of 50

/2

8. A gardener sells his apples in bags.
He uses this formula to work out how much to charge:

$$\text{Cost} = \text{number of apples} \times 30\text{p} + 5\text{p for the bag}$$


How much will a bag of 12 apples cost?



Helen buys a bag of the apples for £4.55

Use the formula to work out **how many** apples Helen bought.

Show your working.



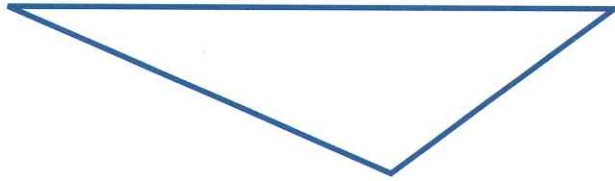
9. Write the missing values in the sum below to make the long multiplication correct.



$$\begin{array}{r}
 6 \square \\
 \times \square 8 \\
 \hline
 5 \ 3 \ 6 \\
 \hline
 2 \ 6 \ 8 \ 0 \\
 \hline
 3 \ 2 \ 1 \ 6 \\
 \hline
 \hline
 \end{array}$$

Marks

10. A triangle is drawn below:



Measure the **longest** side and give your answer in centimetres.


 cm

Measure the **largest** angle.


 °

11. Write whole numbers in the boxes so that the equation is correct. The numbers do not have to be the same.



$$5 \times \square = \square - 5$$

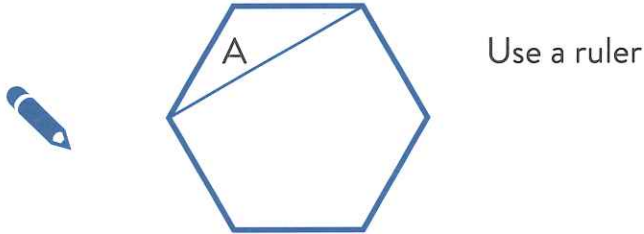
12. What number is exactly **halfway** between 1.4 and 1.7?



Marks

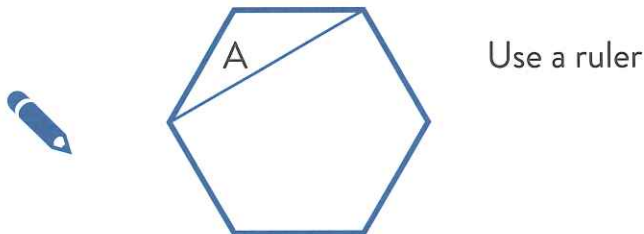
13. Line A joins two vertices of a regular hexagon.

Draw a line that connects two vertices and is **parallel** with line A.



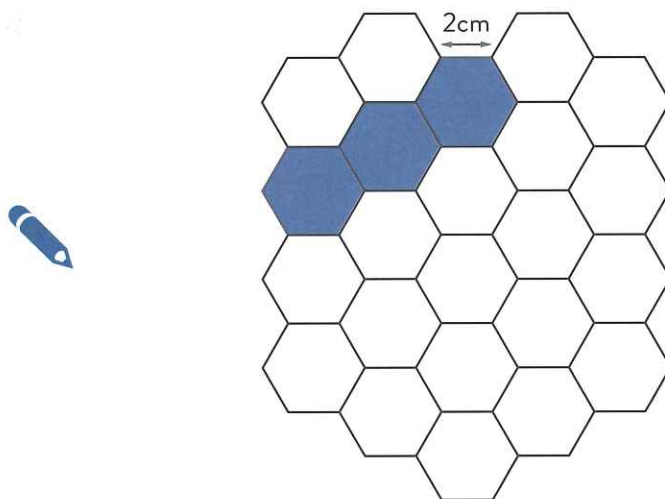
/1

Draw a line that connects two vertices and is **perpendicular** to line A.



/1

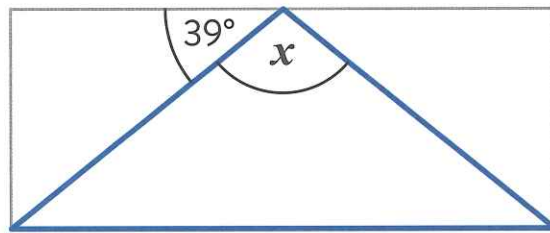
14. Below is a grid of regular hexagons. The shaded section has an area of 3 hexagons and a perimeter of 28cm.



Shade another section of the grid which has an **area** of 4 hexagons and a **perimeter** of 28cm.

/1

15. A shaded **isosceles** triangle is shown below inside a rectangle.



Not to scale

Calculate the size of angle x .

Show your working.



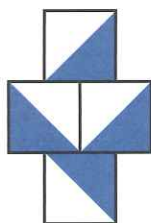
$x =$

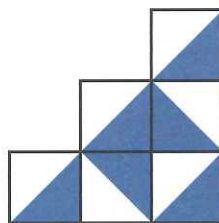
/2

16. Tick all the patterns below that have at least **one** line of symmetry.









/1

17. $p = 18$

What is $2p - 13$?



$p =$

$4p - m = 53$

What is the value of m ?



$m =$

18. 5 grams of silver costs £28.90.

What is the cost of **one kilogram** of silver?

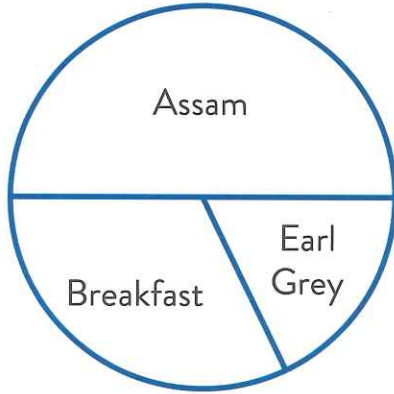
Show your working.



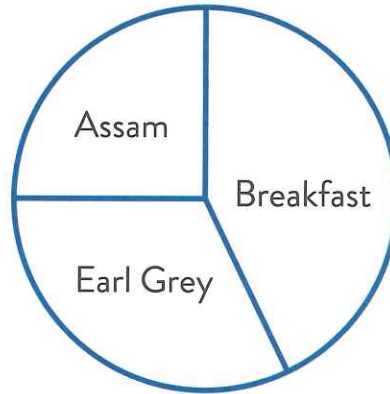
£

19. 50 men and 200 women were asked which variety of tea they preferred.

The pie charts below show the results.



Men



Women

Elsie said that the pie charts showed that **more** women preferred Assam tea than men.

Is Elsie correct? **Explain** your answer.


Marks

/1

20. Rob read $\frac{3}{7}$ of his new detective book on Friday night.
 He read the remaining 100 pages the next day to **finish** the book.
How many pages are there in Rob's book?

Marks





Show your working.



pages

/ 2

21. Round 87,436:

-  to the nearest 50
-  to the nearest 100
-  to the nearest 1,000
-  to the nearest 10,000

/ 2

END OF TEST