ExamNinja

KEY STAGE 2

MATHEMATICS

SET A

PAPER 2 (REASONING)

No Calculators 40 Minutes

First Name	
Last Name	

Total Marks	35

No Calculators.

1. Put the correct numbers in the boxes provided.

One has been done for you.

170 → is 50 more than → 120

☐ → is 50 more than → 190

212 → is 50 more than → ☐

Marks /1

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2. A pack of paper contains 300 sheets.

8 children take 7 sheets **each**.

How many sheets are left in the pack?

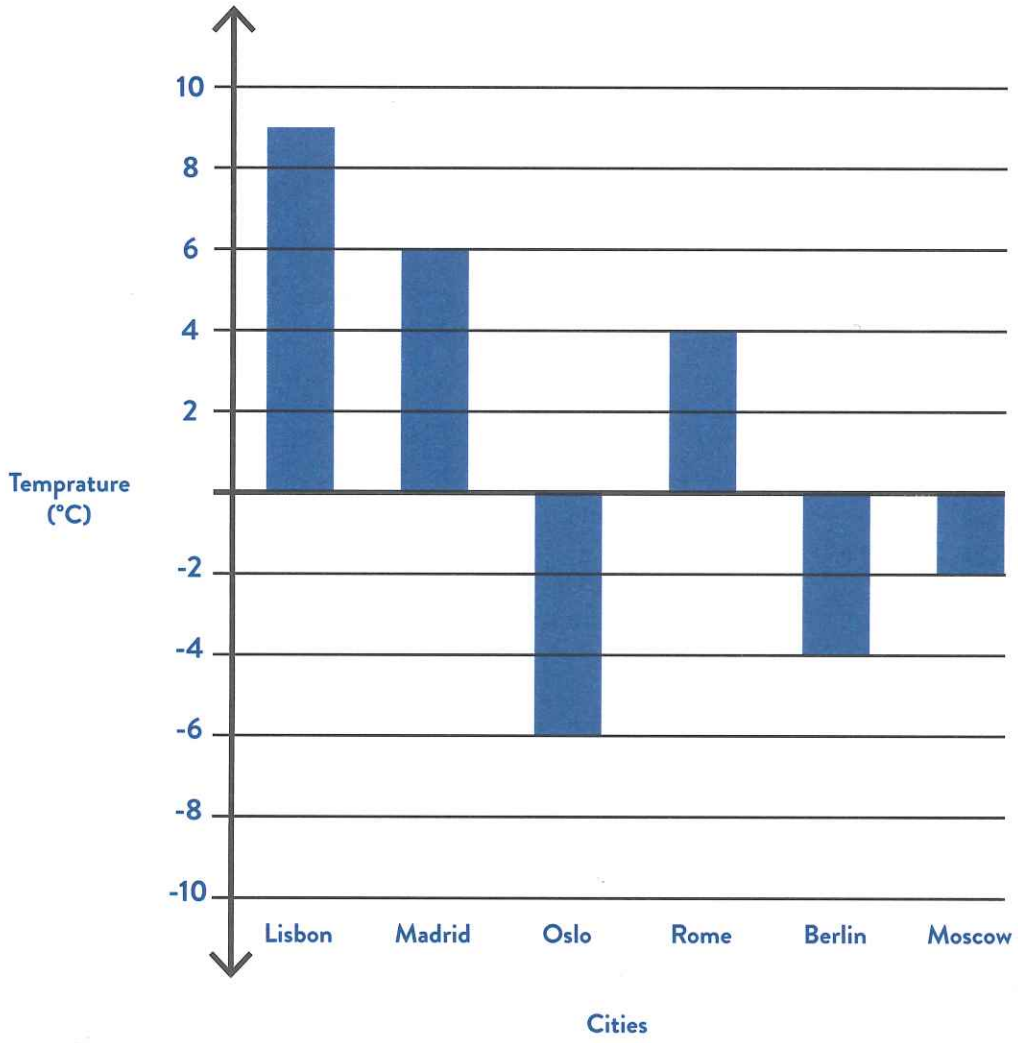
Show your working.

sheets

/2

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

Marks



Which city was 6 °C **warmer** than Moscow?

/1

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

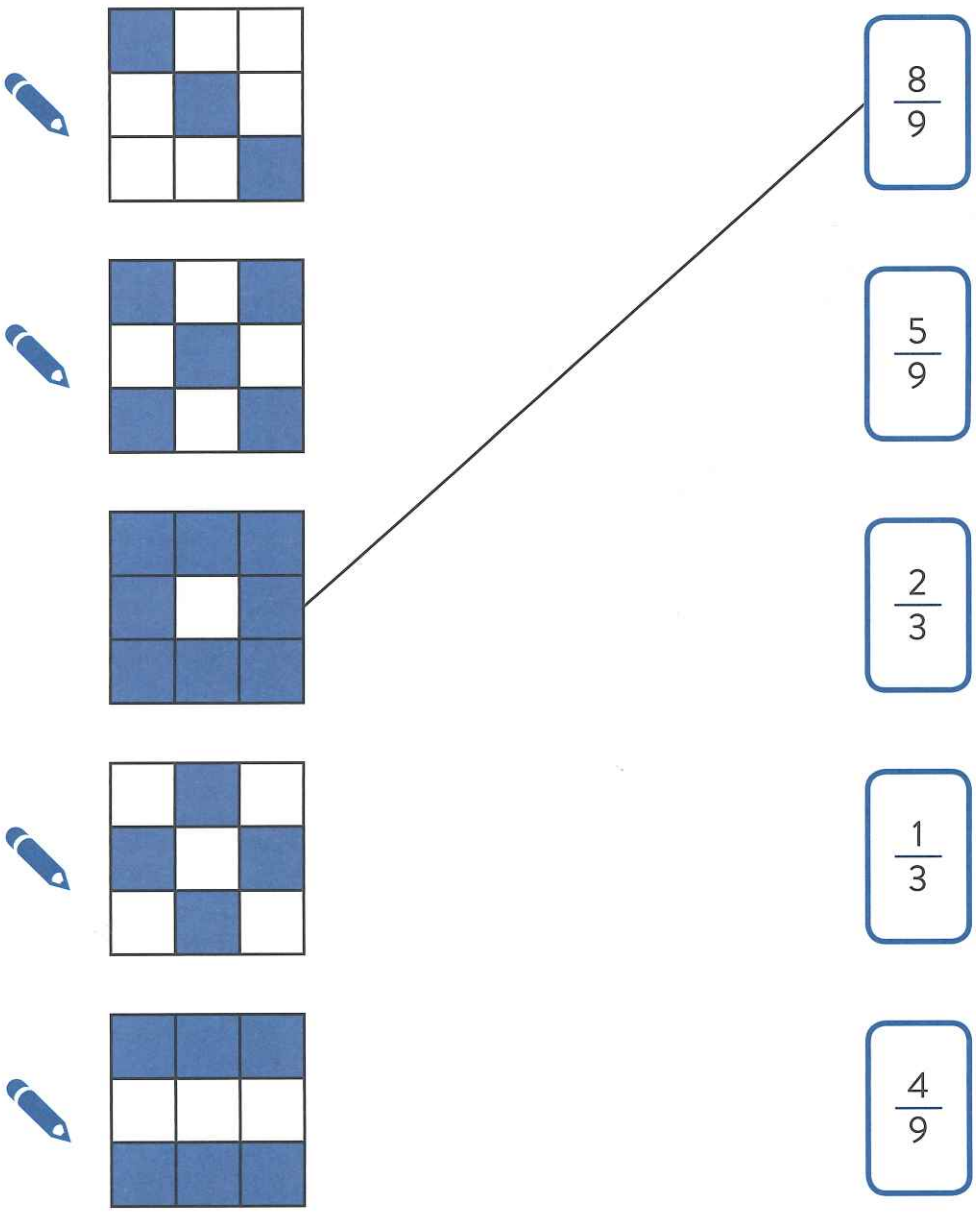
°C

/1

4. **Connect** each shape with its **equivalent** fraction.

One has been done for you.

Marks



/ 2

Marks

5. What is 567 minutes in hours and minutes?

hours minutes /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

Marks

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

Cost = number of apples × 30p + 5p for the bag

How much will a bag of 12 apples cost?

£ _____ /1

Helen buys a bag of the apples for £4.55

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

Show your working.

_____ apples /2

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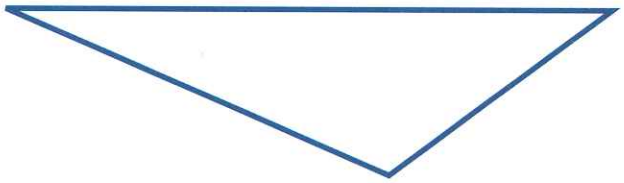
9. Write the missing values in the sum below to make the long multiplication correct.

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

/2

10. A triangle is drawn below:

Marks



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

cm

/ 1

Measure the **largest** angle.

°

/ 1

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

5 × ☐ = ☐ − 5

/ 1

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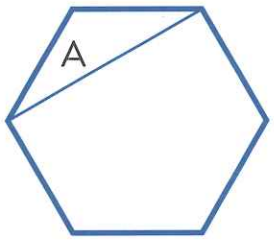
12. What number is exactly **halfway** between 1.4 and 1.7?

/ 1

Marks

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

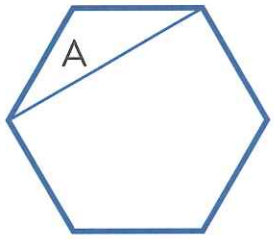
Draw a line that connects two vertices and is **parallel** with line A.



Use a ruler

/1

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



Use a ruler

/1

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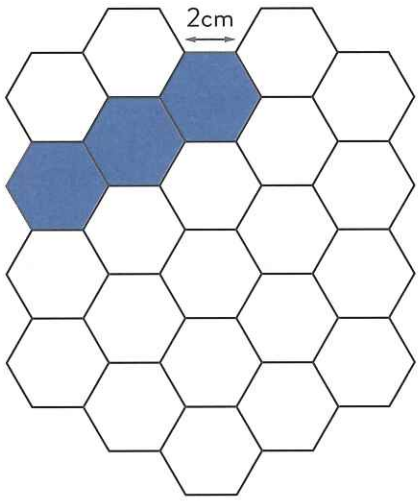
14. Below is a grid of regular hexagons. The shaded section has an area of 3 hexagons and a perimeter of 28cm.

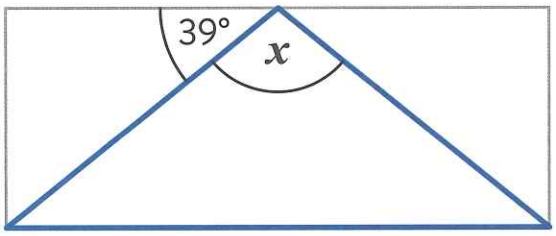


Shade another section of the grid which has an **area** of 4 hexagons and a **perimeter** of 28cm.

/1

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

Marks



Not to scale

Calculate the size of angle x.

Show your working.

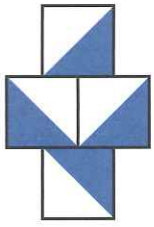
x = °

/ 2

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

☐

☐



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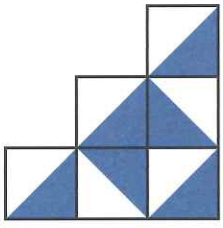

☐

/ 1

No Calculators.

Marks

17. $p = 18$

What is $2p - 13$?

$p =$ _____ / 1

$4p - m = 53$

What is the value of m?

$m =$ _____ / 1

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18. 5 grams of silver costs £28.90.

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

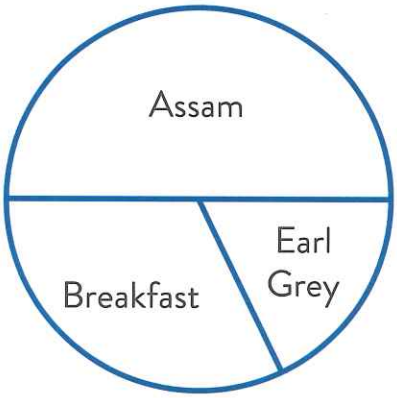
Show your working.

£ _____ / 2

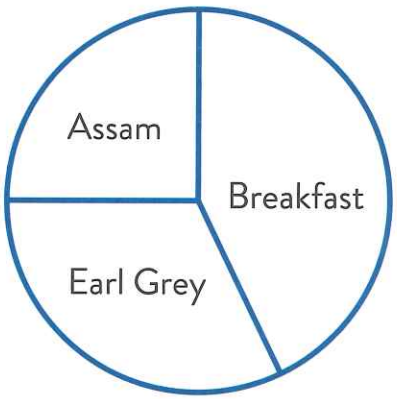
19. 50 men and 200 women were asked which variety of tea they preferred.

Marks

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.

/1

No Calculators.

Marks

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?

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