



KEY STAGE 2
MATHEMATICS

SET B

PAPER 2 : REASONING



No Calculators

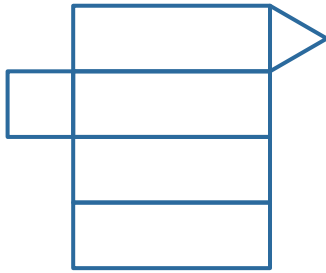


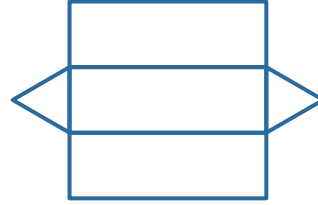
40 Minutes

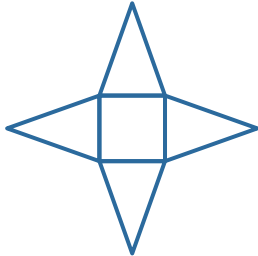
First Name	
Last Name	

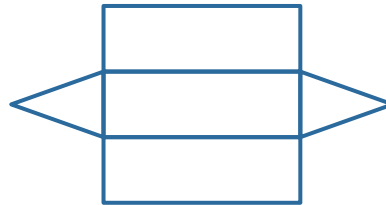
Total Marks	
	35

1. Tick **all** of the nets that fold to make a **triangular prism**.









Marks

2. Clare and **ten** of her classmates got the bus to the cinema. Clare gave the driver a £10 note and paid for **all** of their fares.

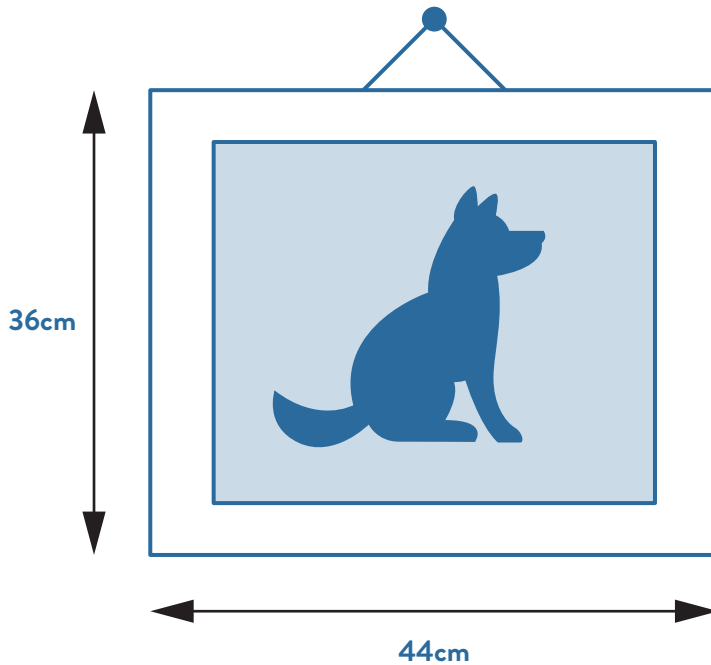
Clare got **10p** change. How much was the fare for **each** child?

Show your working.



3. Denise mounted a picture so that it has a border and hung it on the wall. The area of visible painting is 884cm^2 .

What is the **area** of the border?



Show your working.



cm^2

/ 3

Marks

4. Clare and Henry asked 60 children which type of book they liked most. The tally chart below shows their results.

Complete the tally chart.

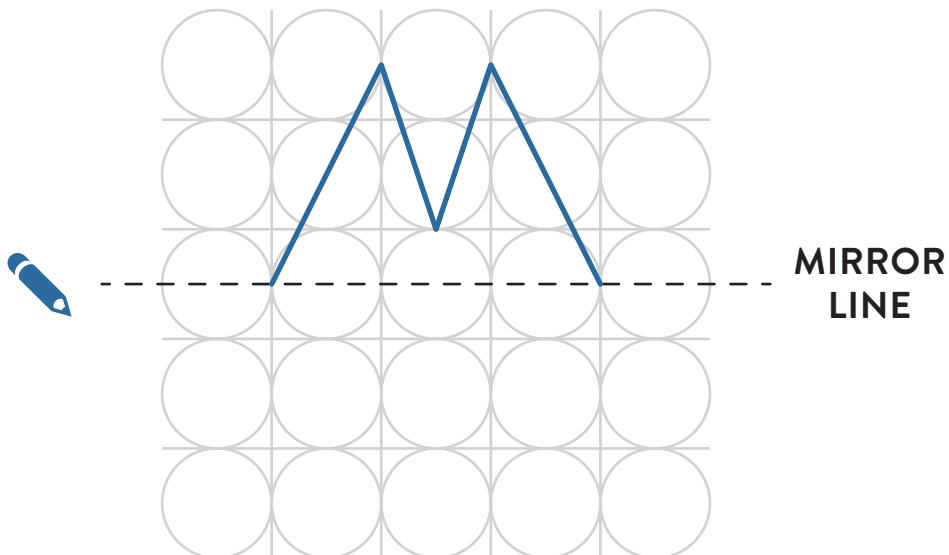


Type of book	Tally	Total
Science Fiction & Fantasy		19
Detective Stories		6
Comedy/Humour		10
Animal Tales		
Adventure		
Non-Fiction		4

Marks

/2

5. Draw the reflection of the blue shape in the mirror line.

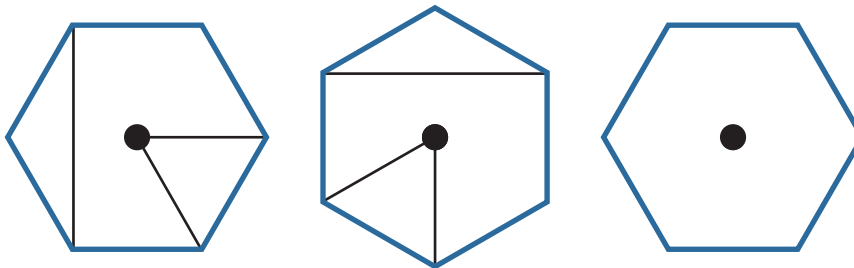


/1

Marks

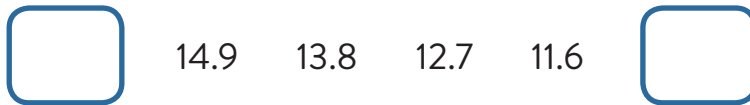
6. This pattern is made by turning a shape clockwise through 90° each time.

Complete the last shape.



/1

7. A number pattern is shown below. The first and last values are missing.
Put the correct values in the boxes provided.



/2

8. What is the Roman number **CMV** in our number system?



/1

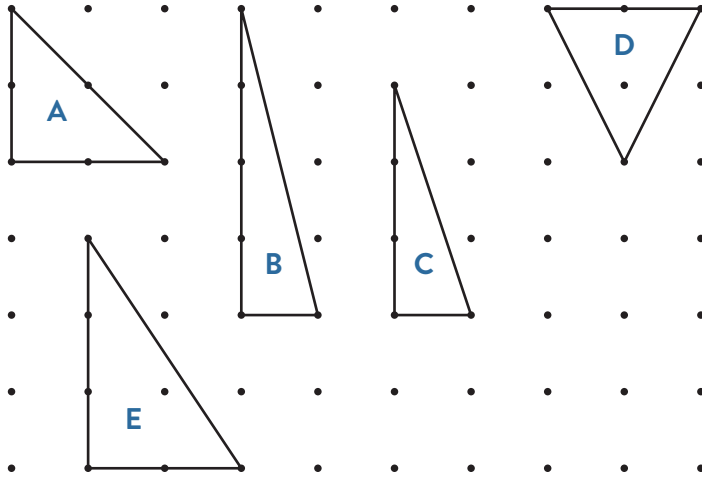
Add together the two Roman numbers: XIV and CXVI and give your answer in Roman numerals.



/1

Marks

9. Some triangles are drawn on square grid below. Which **three** triangles have the same **area**?



 and and

/ 2


10. What number is exactly **halfway** between 20.5 and 22.7?




/ 1

11. Round 36,549:

 to the nearest 50

 to the nearest 100

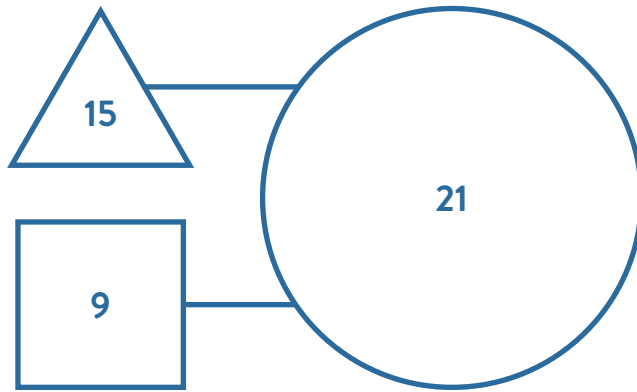
 to the nearest 1000

 to the nearest 10,000

/ 2

12. In the diagram below, the rules are:

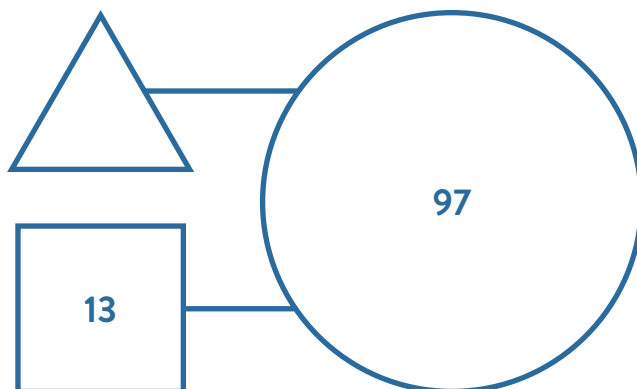
“Double the number in the triangle then subtract the number in the square to make the number in the circle.”



Use the same rules to write in the missing numbers below:



/1

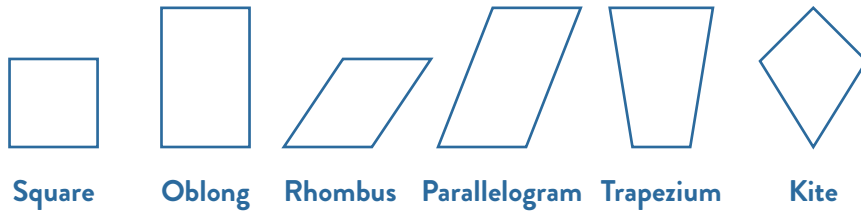


/1

Marks

Marks

13. Here are some quadrilaterals with their mathematical names.



Leanne chooses one of the shapes. She says, "It has only **one** pair of parallel sides."



Which quadrilateral had she chosen?

Alan chooses one of the shapes. He says, "It has **two** obtuse angles and **no** parallel sides."



Which quadrilateral had he chosen?

14. The table below shows where 100 people went on holiday in 2013 and 2014.

	2013	2014
Spain	19	31
Italy	8	6
England	24	27
Wales	32	17
Scotland	17	19

How many **more** people went to Spain in 2014 than in 2013?


 people

Which destination had the greatest **decrease** in popularity?



15. Helen ties 6 pieces of rope together to make one long rope.



The lengths of the pieces are: 2m, 2.2m, 1.6m, 3.4m, 1.8m and 3.4m.

What is the **mean** length of the six pieces of rope?



m

/1

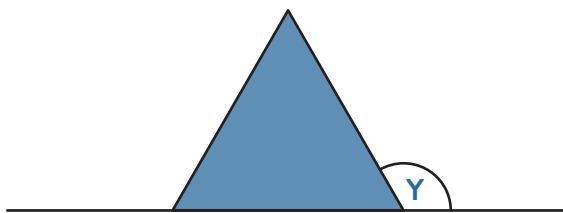
Which is the **modal** length of the six pieces of rope?



m

/1

-
16. An **equilateral** triangle is shown below:



Calculate the size of angle Y.



°

/1

17. Rare white truffles are sold by their weight.
Sue, a local chef, will pay £15 for every 25 grams.

What will the chef pay for a rare white truffle weighing 1.2 kg?

Show your working.

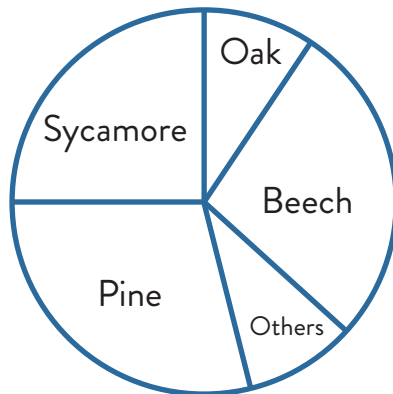


£

Marks

/ 2

18. Class 6A did a survey of trees in a local park. Their results are shown in the pie chart.



Estimate the fraction of trees that were oak trees.



/ 1

If there were **300** trees in the survey, use the pie chart to **estimate** the number of beech trees Class 6A counted.



beech trees

/ 1

19. $\frac{4}{9}$ of the children at St Paul's School are girls.

There are 250 boys at the school.

How many pupils **altogether** go to St. Paul's?

Show your working.



pupils

/ 2

20. Aisha says "All numbers that end in a 3 are multiples of 3".

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



/ 1

END OF TEST

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