

Year 5 – End of Spring Term

(On track to meet end of year expectations)

Mathematics

Paper 2: reasoning

First name	
Middle name	
Last name	

Total marks



Instructions

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

Questions and answers

You have approximately **40 minutes** to complete this test.

Follow the instructions for each question.

Work as quickly and as carefully as you can.

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

Some question have a method box like this:

The diagram illustrates a 'method box' for showing working out. It consists of a rounded rectangle on the left containing the text 'Show your method'. To its right is a large grid of 20 columns and 10 rows, outlined in red. Within the bottom right area of this grid, there is a smaller rectangle outlined in blue, representing a designated space for a student's method.

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 page tells you the maximum number of marks available for each question.

Three hundred and forty thousand nine hundred and twenty-six

1 mark

Ali is saving up to buy a new computer game which costs £47.85

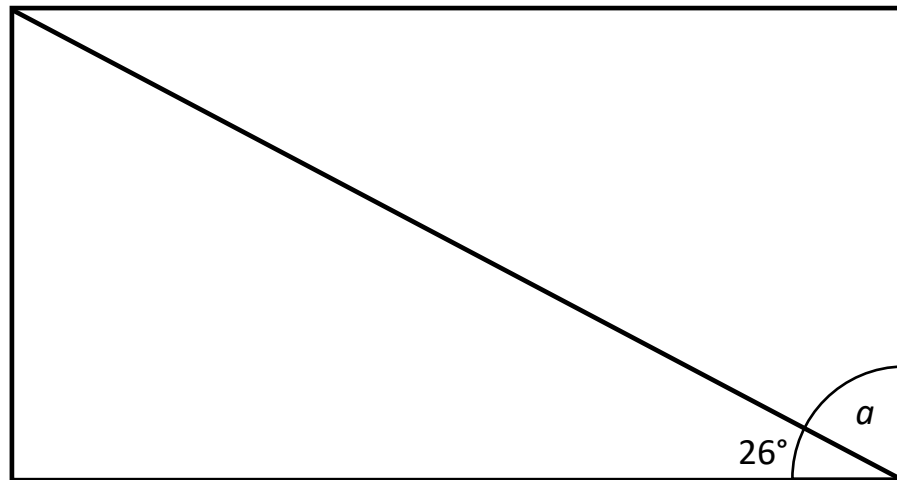
How much **more** does Ali need to save to buy the game?

£

1 mark

3

Calculate angle a in this rectangle.



Not drawn
to scale

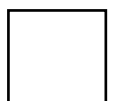


1 mark

4

In measurement, the unit of 1 foot is approximately 30cm.

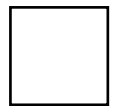
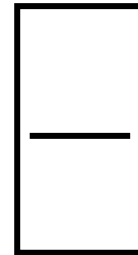
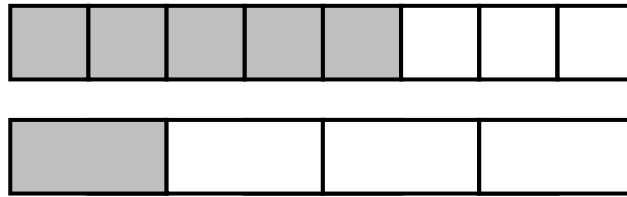
How many centimetres are there in 20 feet?



1 mark

5

Use the fractions strips to calculate the answer to $\frac{1}{4}$ add $\frac{5}{8}$



1 mark

6

Tick the shapes that must be **regular**.

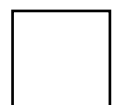
square



pentagon



equilateral triangle

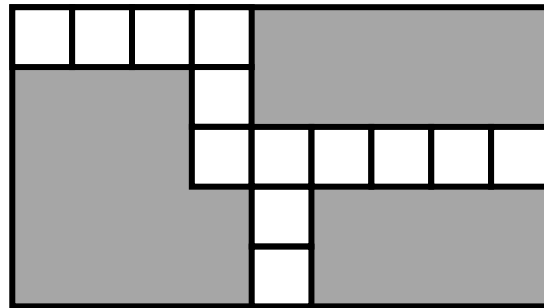


1 mark

7

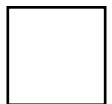
Here is a grey rectangle with some white squares on it.

Each white square is 1m^2



Not drawn
to scale

What is the **total area** of the grey rectangle?



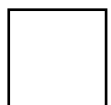
1 mark

8

Here is a time shown on a 24 hour clock.

20:45

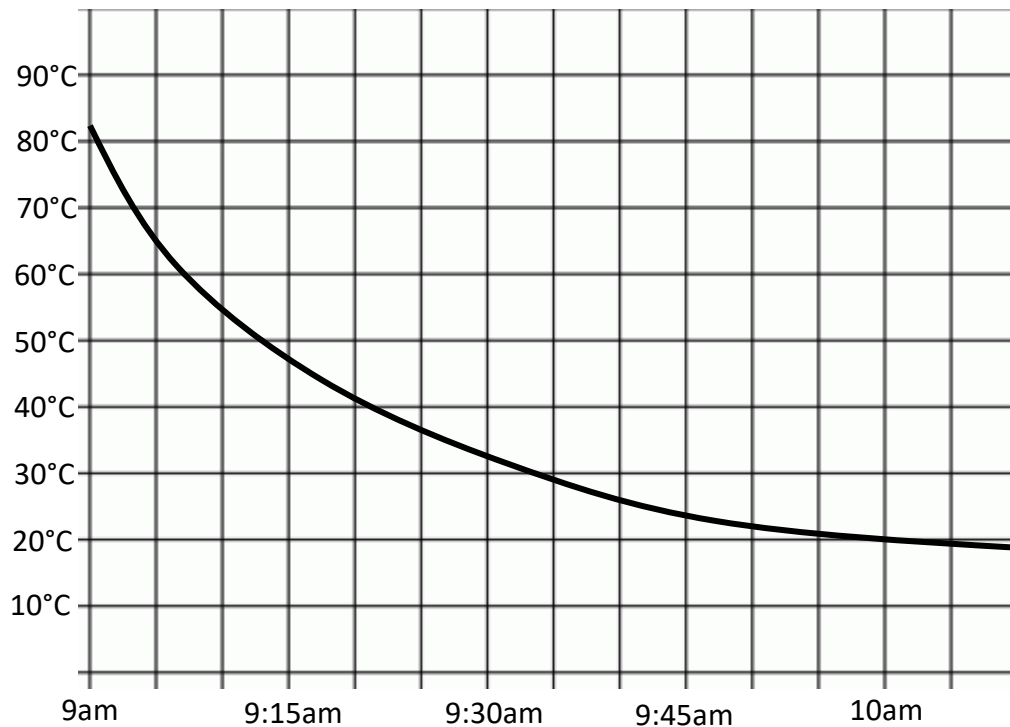
What time is it using 12 hour clock notation?



1 mark

9

This line graph shows the change in temperature of a cup of hot chocolate that has been left on a table.



What was the **temperature** of the drink at 9:15am?

°C

1 mark

At what **time** did the temperature of the drink reach 30°C?

am

1 mark

10

Which of these are factor pairs for the number 240?

Tick the ones that apply

12 x 20

☐

80 x 30

☐

4 x 60

☐

30 x 8

☐

40 x 60

☐☐

2 marks

11

Write **all** the numbers between 250 and 280 that are divisible by 6

☐

2 marks

12

The numbers in this sequence increase by 10,000 each time.

Write the missing numbers.

23,500

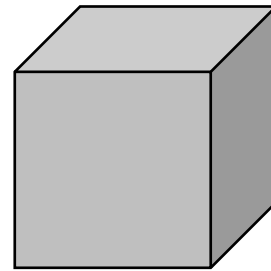
33,500

43,500

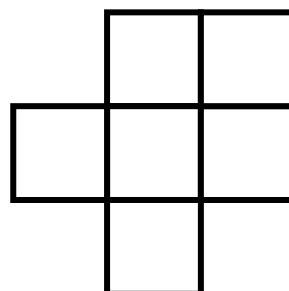
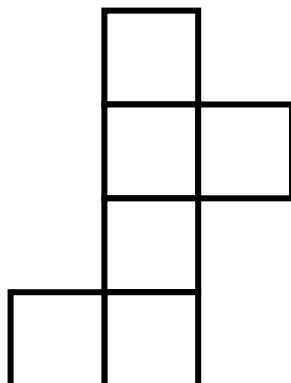
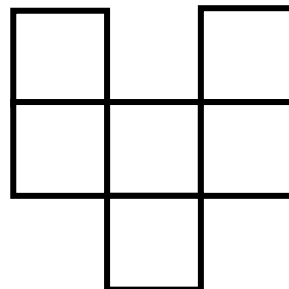
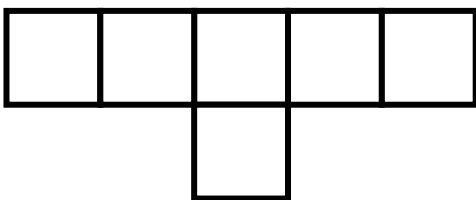
1 mark

13

Sara has a cardboard box that is a cube.
She cuts along some of the edges and
opens it out to look at its net.



Tick the **one** net that will make a cube.



1 mark

14

Ali and Ben want to start collecting stickers.


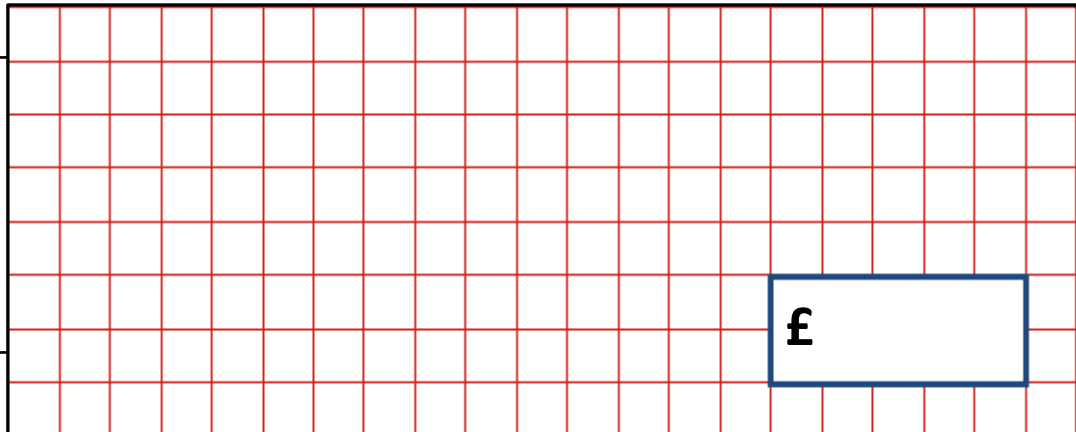
One packet of stickers costs 85p.

The sticker album costs £2.40

They decide to buy **six packets** of stickers and one sticker album.

How much do they **each** have to pay if they share the cost equally?

Show
your
method



3 marks

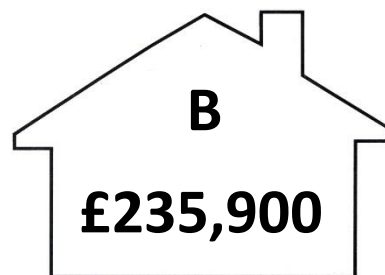
15

Write the mixed number $3\frac{5}{6}$ as an improper fraction.

1 mark

16

Here are the prices of two houses.

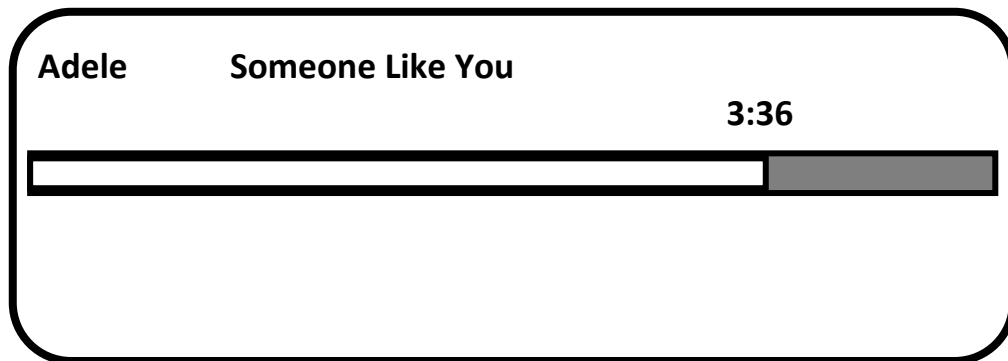


Which house is **closest** in value to £200,000?
Explain how you know.

2 marks

17

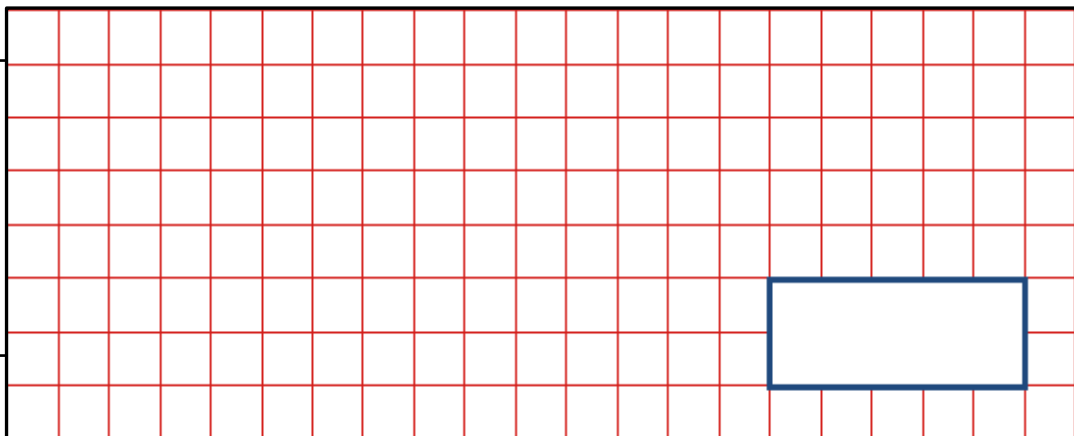
This is what Ali's music player is showing.



The song is **three quarters** of the way through and has lasted 3 minutes and 36 seconds.

How long is the song in total?

Show
your
method

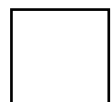


2 marks

18

Fill in the missing number to complete the calculation.

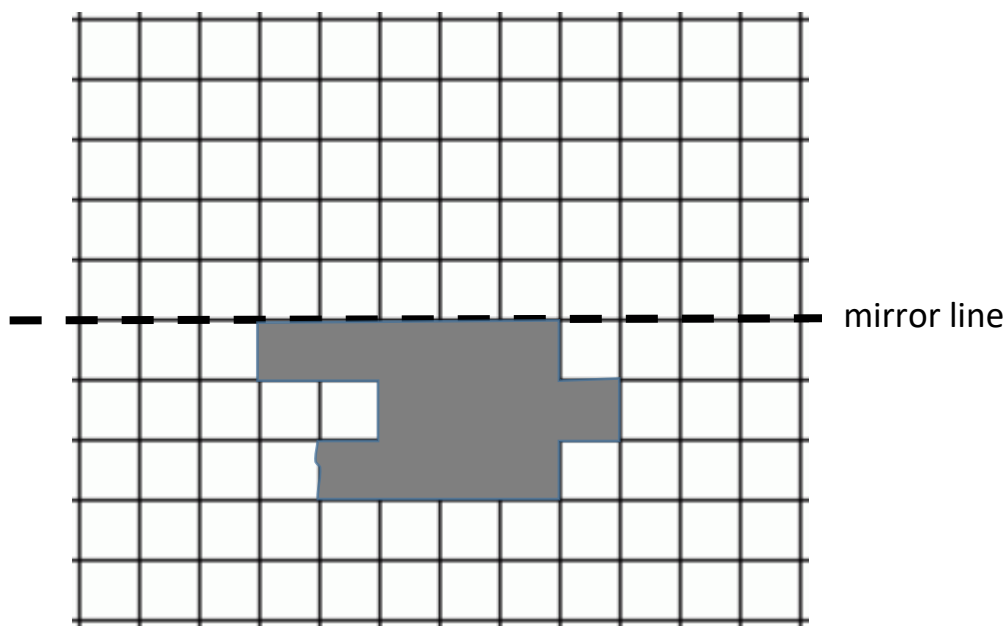
$$342 \div \boxed{} = 3.42$$



1 mark

19

Draw the reflection of the shaded shape on the grid.

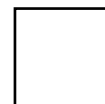


1 mark

20

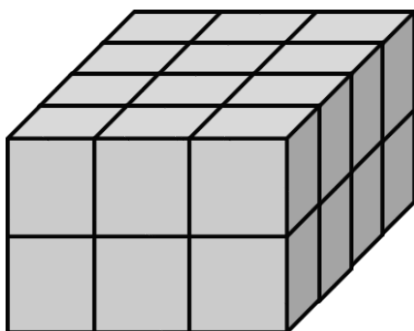
What number is represented by these Roman numerals?

CCCLX



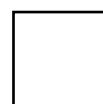
1 mark

21 Ben makes this cuboid using 1 cm^3 cubes.



What is the **volume** of Ben's cuboid?

cm^3



1 marks

Sara makes a cuboid that has the **same volume** but different dimensions.

What could the dimensions of Sara's cuboid be?

Width

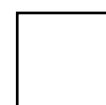
cm

Height

cm

Depth

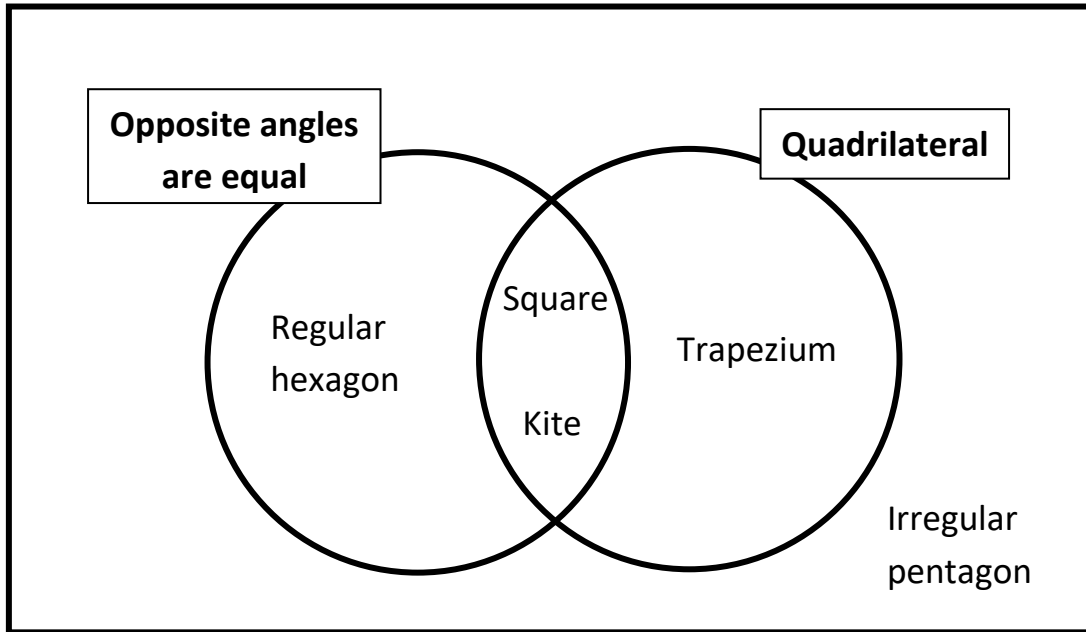
cm



1 marks

22

Cross the shape that has been sorted incorrectly.

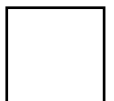
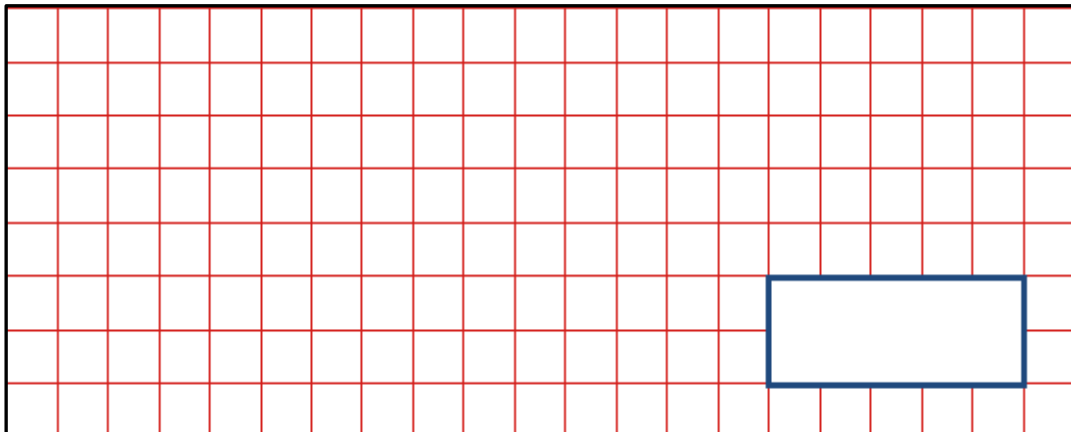


1 mark

23

A sweet shop receives an order of 60 packets of Jelly Beans.
Each packet contains 75 Jelly Beans.

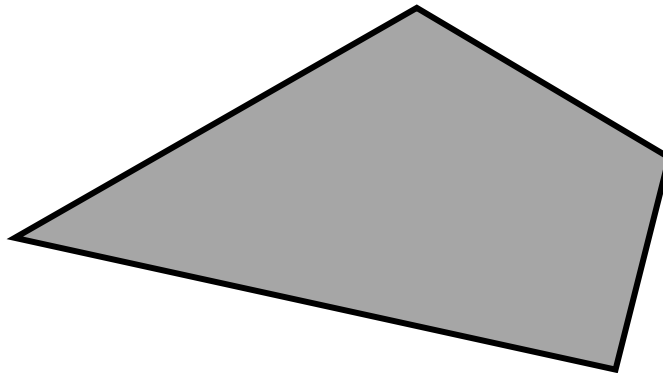
How many Jelly Beans is this in total?



1 mark

24

Estimate the size of the **acute angle** in this shape.

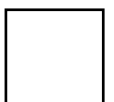


1 mark

25

$$45,621 - 32,954 = 12,667$$

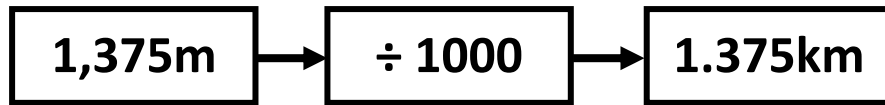
Explain how you can use this to work out $65,621 - 52,954$

A large empty rectangular box with a black outline, intended for the student to write their explanation.

1 mark

26

Complete each of these measurement conversions.
The first one has been done for you.



2 marks

END OF TEST