Key Stage 2 (2019)

Mathematics

Paper 3: reasoning

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

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Please do not write on this page.

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

You have 40 minutes to complete this test.

Follow the instructions for each question.

Work as quickly and carefully as you can

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

Some questions have a method box like this:

Show
your
method

For these questions, you may get a mark for showing your method.

If you cannot do a question, go to the next one.

You can come back to it later, if you have time.

The number under each line at the side of the page tells you the number of marks available for each question.

1 The original price of this car is £6,999.

Sale
£2,400 off

What is the **sale** price of the car?

1 mark

2

6,740,917

Which digit is in the **hundred thousands** place?

1 mark

Round 6,740,917 to the **nearest thousand.**

1 mark

3 David says,

I had £7

I was given some more money.

Which expression shows how much money David has left?

a is the amount of money, in pounds, that David was given.

Tick **one**.

7 x a ☐

7 ÷ a ☐

a – 7 ☐

a + 7 ☐

7 + a ☐

7 - a ☐

1 mark

4 Write these masses in order, starting with the **lightest**.

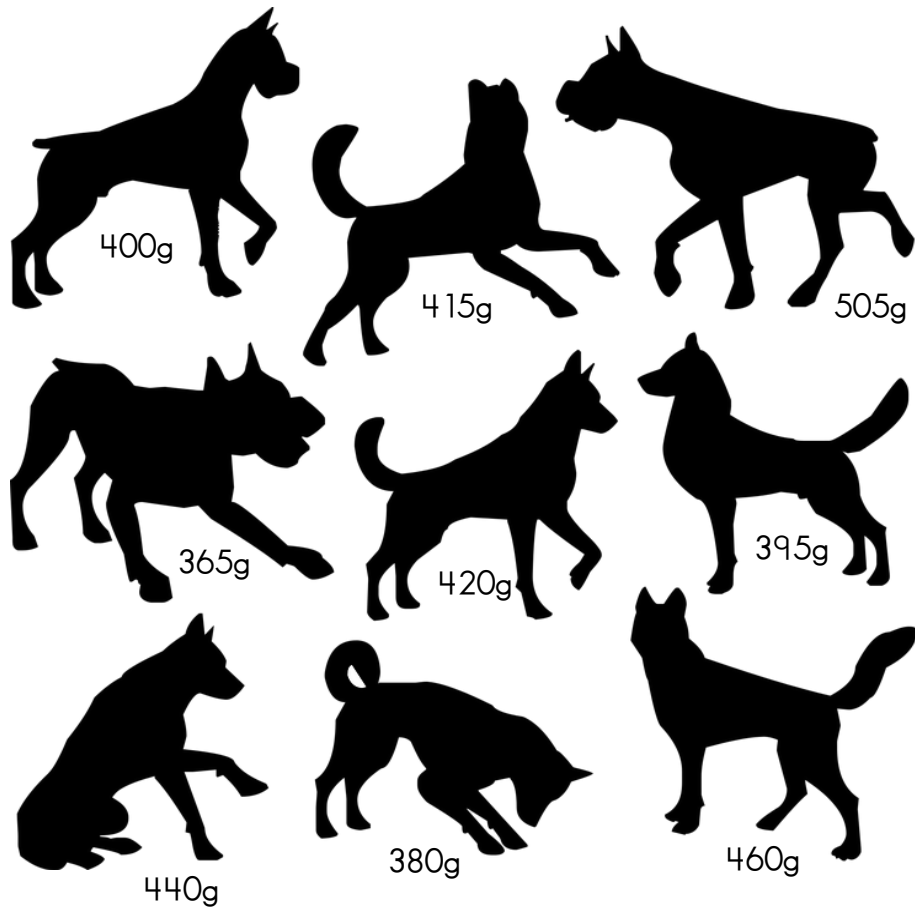2.78kg   1.09kg   1.9kg   2.078kg

| kg | kg | kg | kg |

lightest

1 mark

5 Write the missing digits to make this addition correct.

$$\boxed{}\ 6\ \boxed{} \quad + \quad \boxed{}\ 6 \quad = 400$$

6 Matt buys one toy Rubik's Cube and one pack of cards.

£2.54   £1.89

He pays with a £20 note.

How much change does he get?

Show your method

7 This picture shows the masses of nine puppies.

400g
415g
505g
365g
420g
395g
440g
380g
460g

What is the difference between the heaviest puppy and the lightest puppy?

[g]

1 mark

The masses of the puppies are put into four groups.

Write the missing numbers in the table.

One has been done for you.

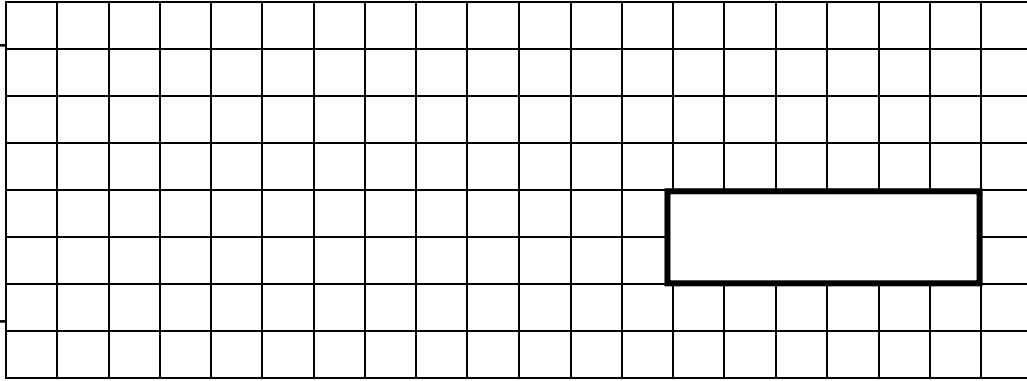| Mass in g	Number of puppies
350-399	
400-449	
450-499	
500-550	1

1 mark

8 Dan is playing a game. He had 7,367 points.

Then he scores another 265 points.

Dan's target is 9,000 points.

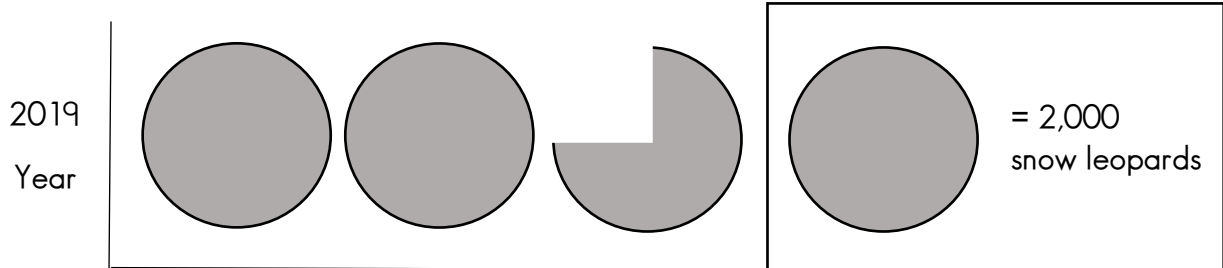How many **more** points does dan need to reach his target?

Show your method

_____
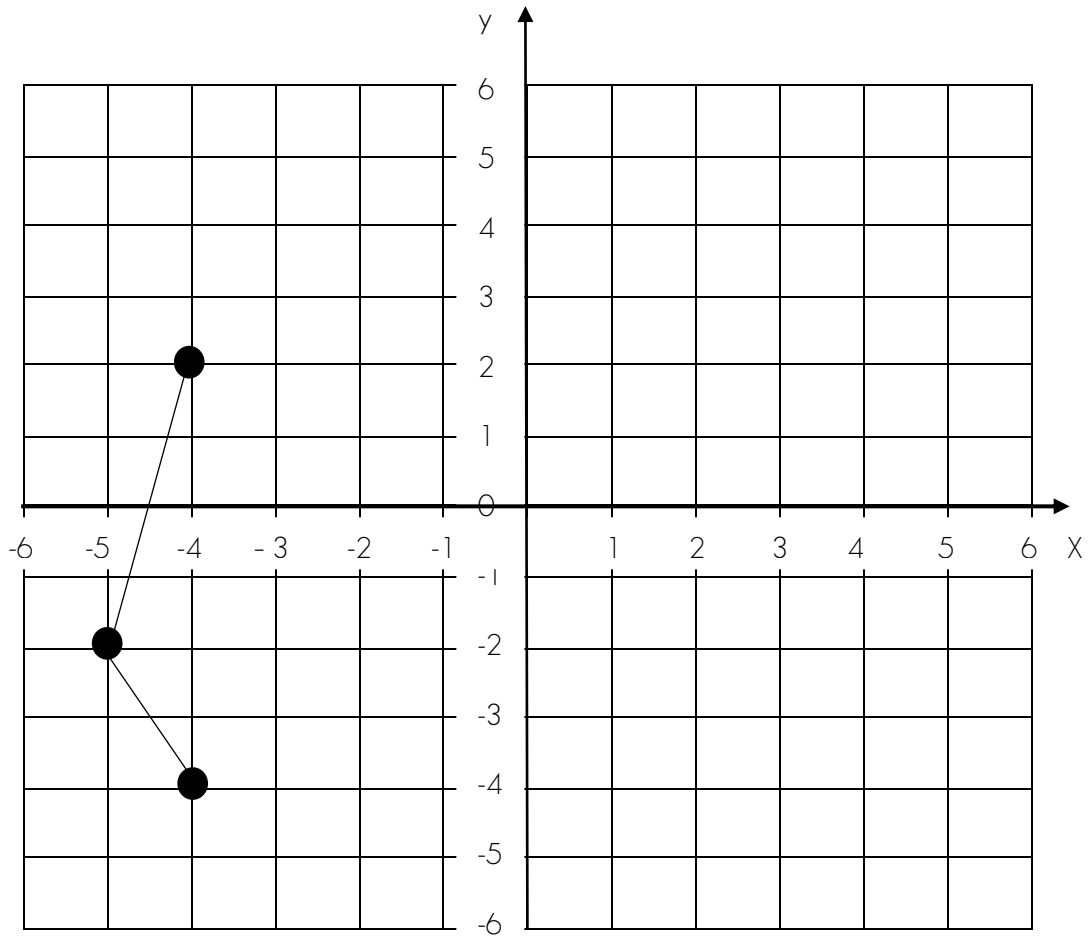
2 marks

9 This pictogram shows the number of snow leopards left in the wild.

2019
Year

= 2,000 snow leopards

How many snow leopards are left in the wild?

_____

1 mark

10 On the grid there are three main points joined by two lines.

Sara then plots another point on the grid at (-2, 1).

She then joins the points to make a quadrilateral.

Complete Sara's quadrilateral on the grid.
Use a ruler.

_____
1 mark

Then Sara translates the quadrilateral 6 squares to the right.

Draw the quadrilateral in its new position on the grid.

_____
1 mark

11

Here are 5 numbers

~~3~~   4   5   6   7

Write each number on the correct card.

The number 3 has been written on the correct cards for you.

Prime numbers	Factors of 14	Factors of 35
3		

2 marks

12

Zainab's sofa is 160 cm in length and 115cm in width.

She is making a one-tenth scale model of the sofa.

Write each number on the correct card.
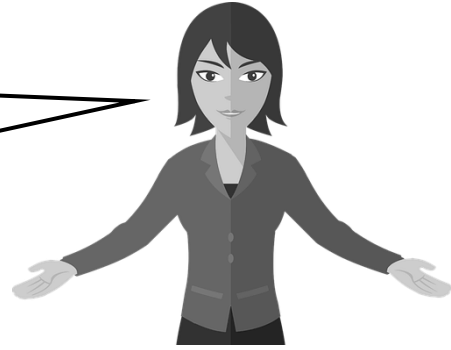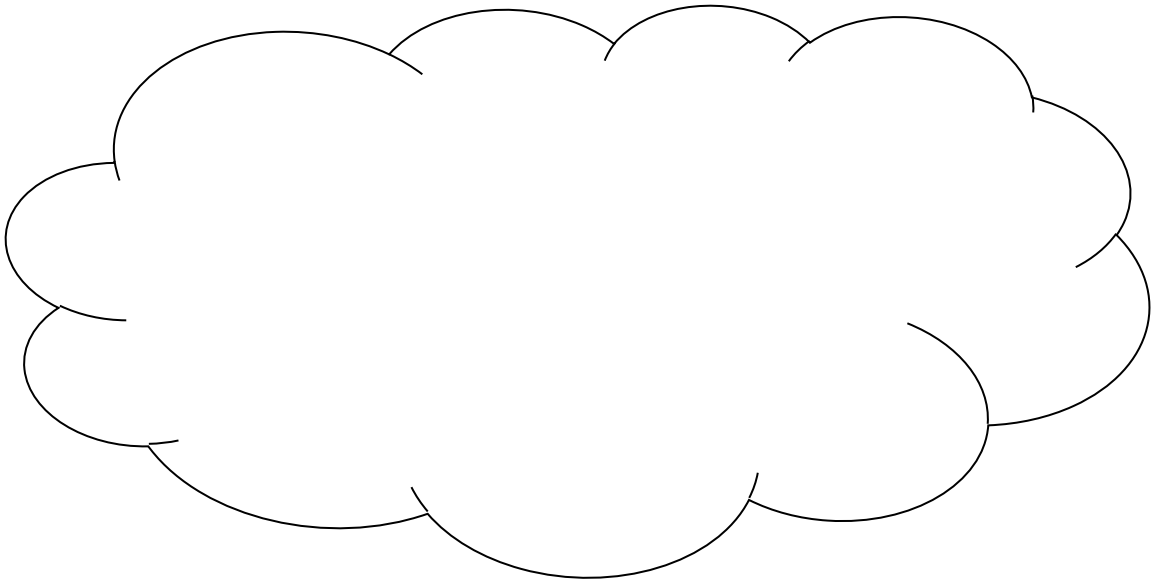
length = ⬚ cm

width = ⬚ cm

1 mark

13

Kerry says,

When you half the size of a reflex angle, you always get an obtuse angle
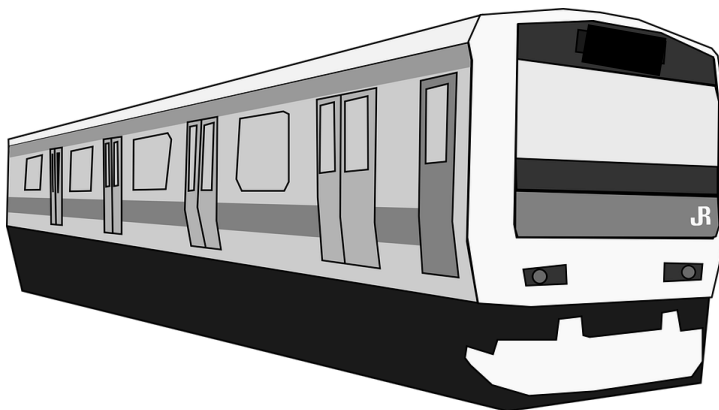
Explain why Kerry is **not** correct.

_____
1 mark

14

How many days are there in **June, July** and **August** altogether?

days

_____
1 mark

15 From Nottingham to London on the train, it is 130miles.
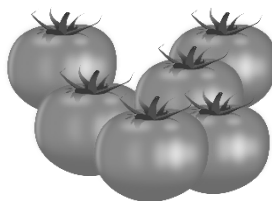
How far is it from Nottingham to London in kilometres?

Use 8 kilometres equals 5 miles.

km

16

Onions

£2.60 per kg

Tomatoes

£1.20 per kg

Jill buys 1 ½ kg of onions and ½ kg of tomatoes.

How much change does she get from £10?

Show your method

17

$$a + 3b = 30$$

a and b are whole numbers less than 20.

What could a and b be?

a = ☐

b = ☐

1 mark

18

Tick the fractions that are **more than** $\frac{4}{6}$

$\frac{11}{12}$ ☐

$\frac{1}{3}$ ☐

$\frac{10}{18}$ ☐

$\frac{26}{36}$ ☐

$\frac{5}{6}$ ☐

2 marks

19

Angie makes jewellery to sell at the school fair.

Each bracelet has 41 beads.

She makes 72 bracelets.

Each necklace has 109 beads.

She makes 27 necklaces.

How many beads does Angie use **altogether?**

Show your method

| | beads |

20 Eve is making booklets.

Each booklet must have 48 sheets of paper.

She has 4 packets of paper.

There are 250 sheets of paper in each pack.

How many complete booklets can Adam make from 2 packets of paper?

Show your method

booklets

2 marks

ABDE is a rectangle on a coordinate axis.

The sides of the rectangle are parallel to the axis.

Not to scale
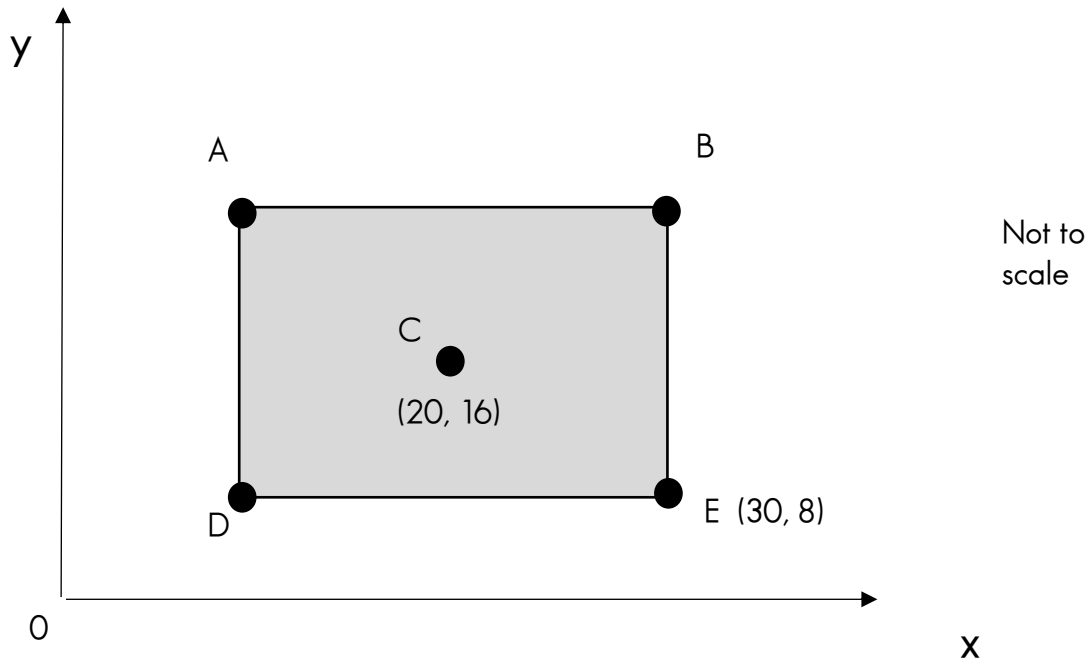
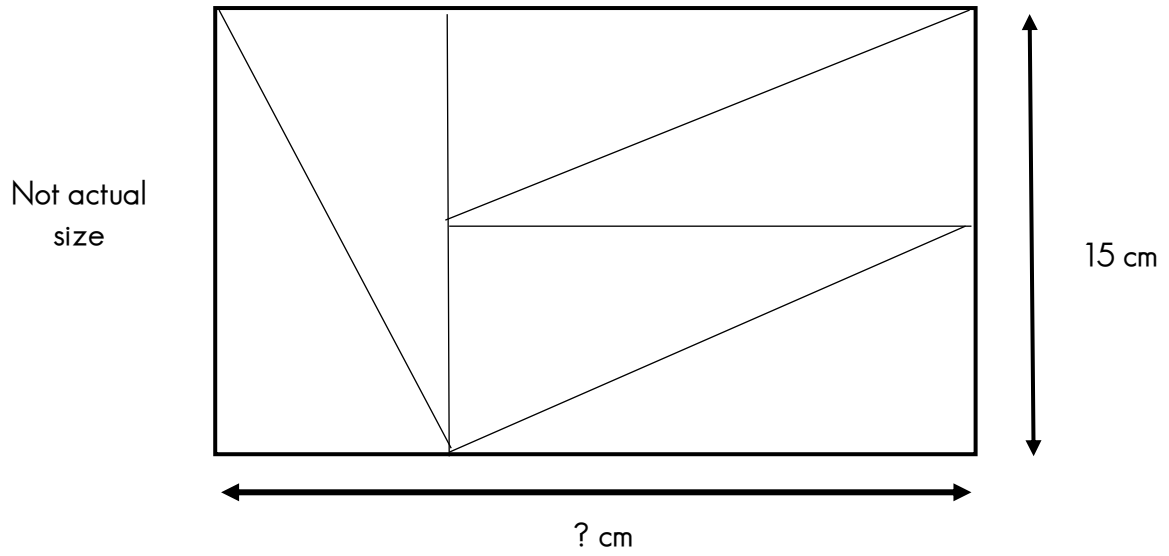Point C is in the centre of the rectangle.

What are coordinates A and B?

A = (,)

1 mark

B = (,)

1 mark

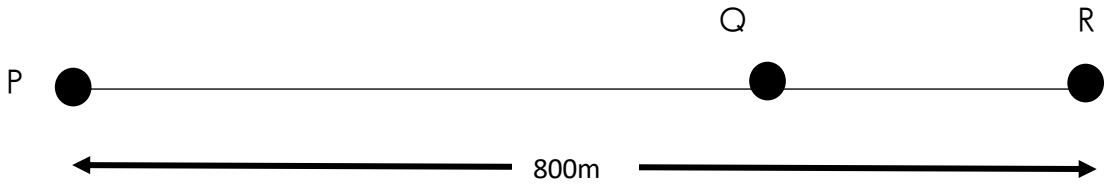**22** Six identical right-angled triangles are arranged to make a rectangle.

Not actual size

15 cm

? cm

calculate the length of the rectangle.

cm

23

P   ●————————————————————●————————————●
                                                      Q   R
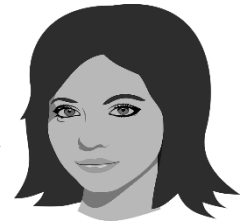
← —————————— 800m —————————— →

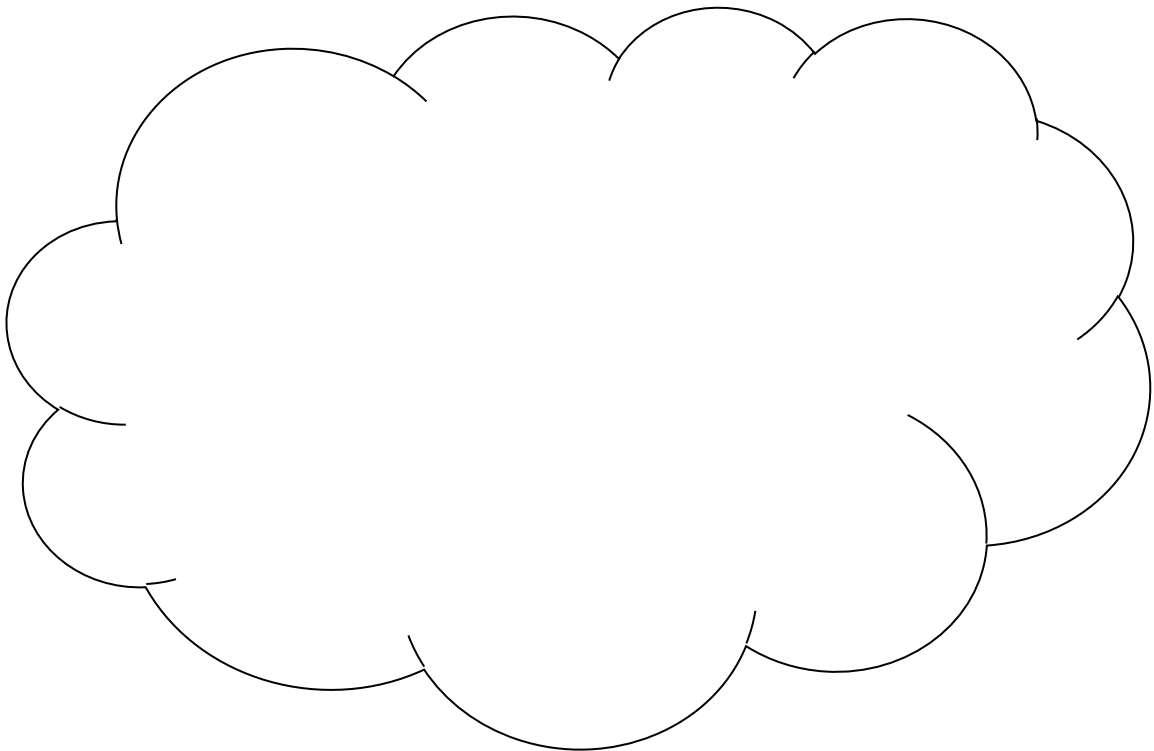The distance from point P to point R is 1000 metres.

The distance from point P to point Q is 4 times the distance from point Q to point R.

Lucy says,

> It is 250m from point Q to point R.

Explain why Lucy is **not** correct.

_____

1 mark

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Please do not write on this page.

Mr A, Mr C and Mr D Present
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SATs-style national curriculum tests
Reasoning Paper 3 (2019)

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