Ma

KEY STAGE 3

LEVELS 3–4

Year 7 mathematics test

Paper 2

Calculator allowed

First name _____

Last name _____

Class _____

Date _____

Please read this page, but do not open your booklet until your teacher tells you to start. Write your name, the name of your class and the date in the spaces above.

Remember

- The test is 45 minutes long.
- You **may** use a calculator for any question in this test.
- You will need: pen, pencil, rubber, ruler and a calculator.
- This test starts with easier questions.
- Try to answer all the questions.
- Write all your answers and working on the test paper – do not use any rough paper. Marks may be awarded for working.
- Check your work carefully.
- Ask your teacher if you are not sure what to do.

For marking use only	Total marks	

Instructions

Answers

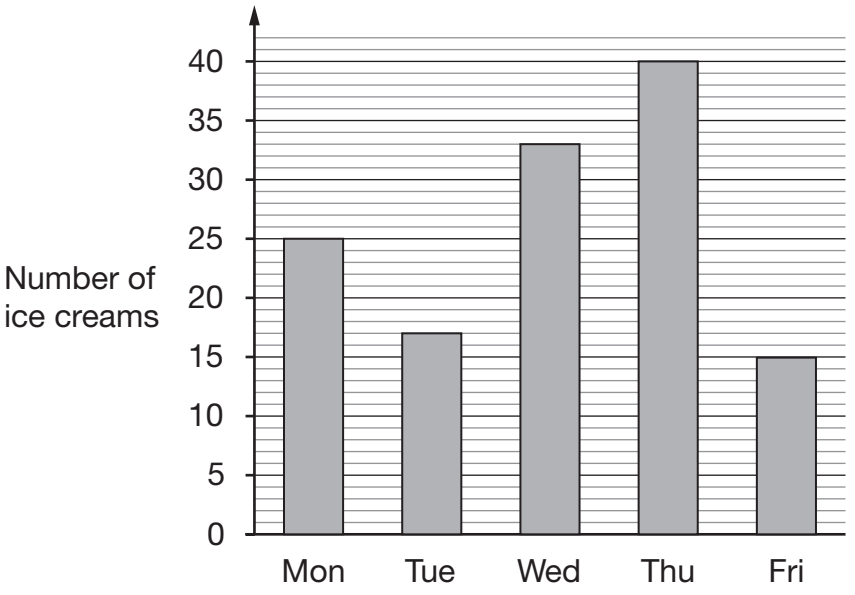
This means write down your answer or show your working and write down your answer.

Calculators

You **may** use a calculator to answer any question in this test.

1 In the summer, Mina sells ice creams in the park.

The bar chart shows the number of ice creams she sold on five days.



(a) On which day did she sell **fewest** ice creams?

_____

1 mark

(b) How many ice creams did she sell on **Tuesday**?

_____

1 mark

(c) She sold more ice creams on **Wednesday** than on **Monday**.

How many more?

_____

1 mark

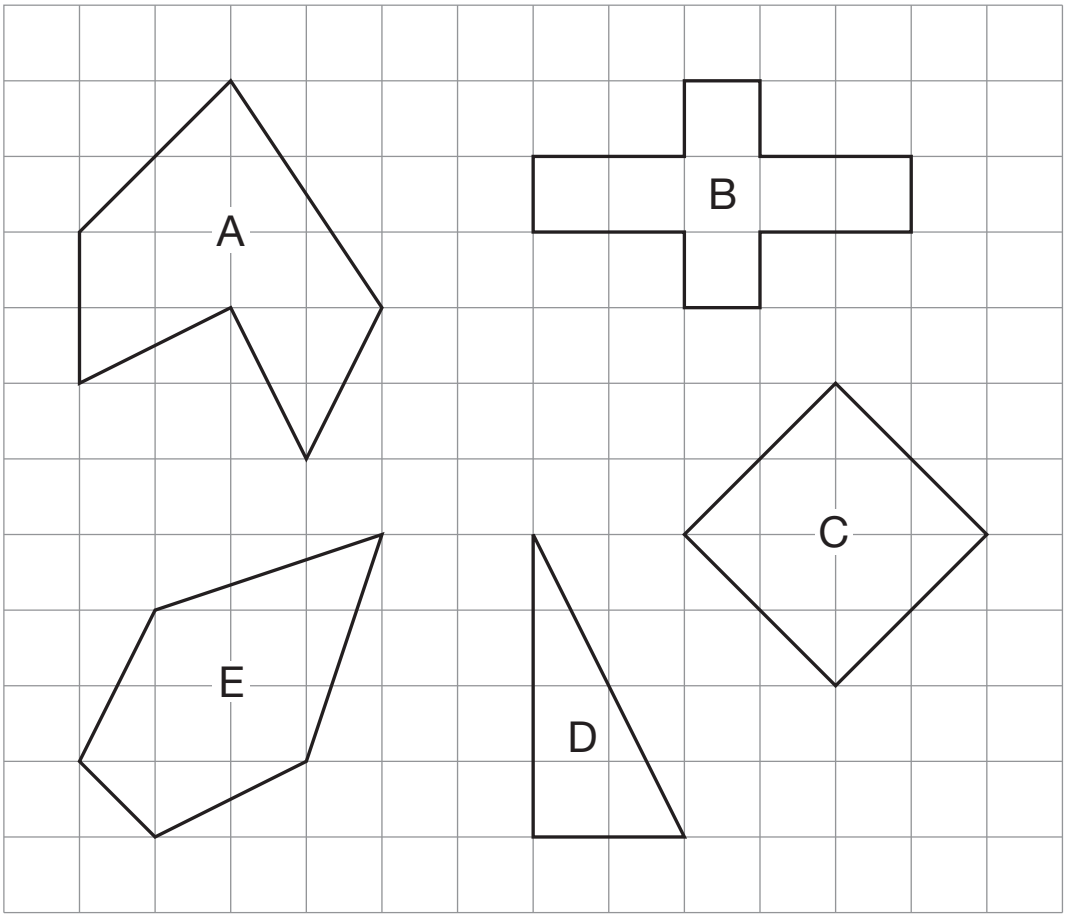
2 Write **exactly three coins** that make each amount of money below.

The first one is done for you.

amount of money	coins		
40p	*20p*	*10p*	*10p*
80p			
£1.20			
£1.60			

2 marks

3 Look at the shapes drawn on a square grid.



Complete the sentences below by writing the correct letter.

One is done for you.

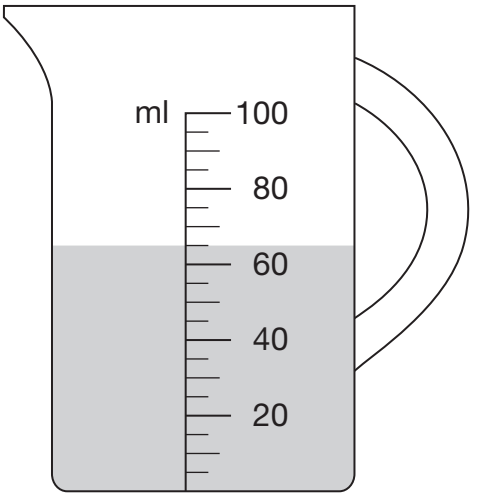
Shape *D* has exactly one right angle.

Shape _____ is a square. 1 mark

Shape _____ has exactly two lines of symmetry. 1 mark

Shape _____ is a hexagon. 1 mark

4 How many millilitres of water are in the jug?



_____ ml

1 mark

5 The table below shows the times of some exercise classes at a sports centre.

Start time	Monday	Tuesday	Wednesday	Thursday	Friday
11:00		Body Tone 45 minutes	Step Class 60 minutes		
11:30				Aerobics 30 minutes	
12:00	Yoga 45 minutes				
12:30	Body Tone 30 minutes		Keep Fit 45 minutes		Yoga 90 minutes
13:00		Keep Fit 60 minutes			
13:30	Step Class 60 minutes				Keep Fit 60 minutes
14:00			Yoga 90 minutes	Body Tone 45 minutes	

(a) On which days are there Step Classes?

_____ and _____ _____
1 mark

(b) On Tuesday, what time does Keep Fit **start**?

_____ : _____ _____
1 mark

(c) On Wednesday, what time does Yoga **end**?

_____ : _____ _____
1 mark

6 Tom goes shopping.

This is what he buys.

£1.79

£2.80

£7.65

Tom pays with a £20 note.

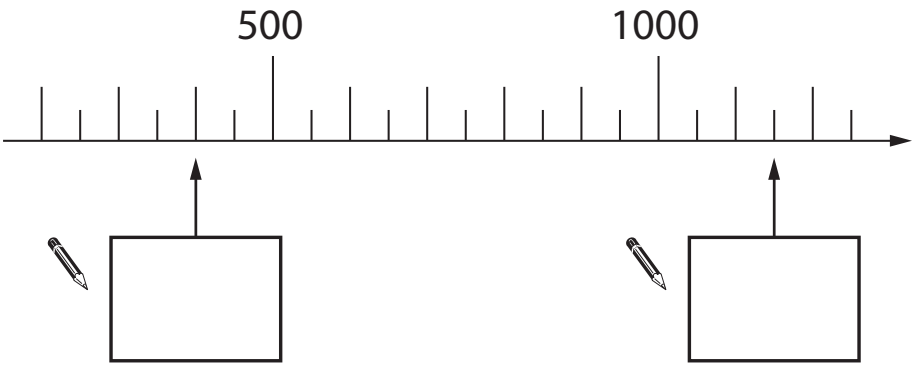
How much change should he get?

£ _____

2 marks

7 Look at the number line below.

Write the missing numbers in the boxes.



1 mark

1 mark

8 Round these amounts of money to the nearest pound.

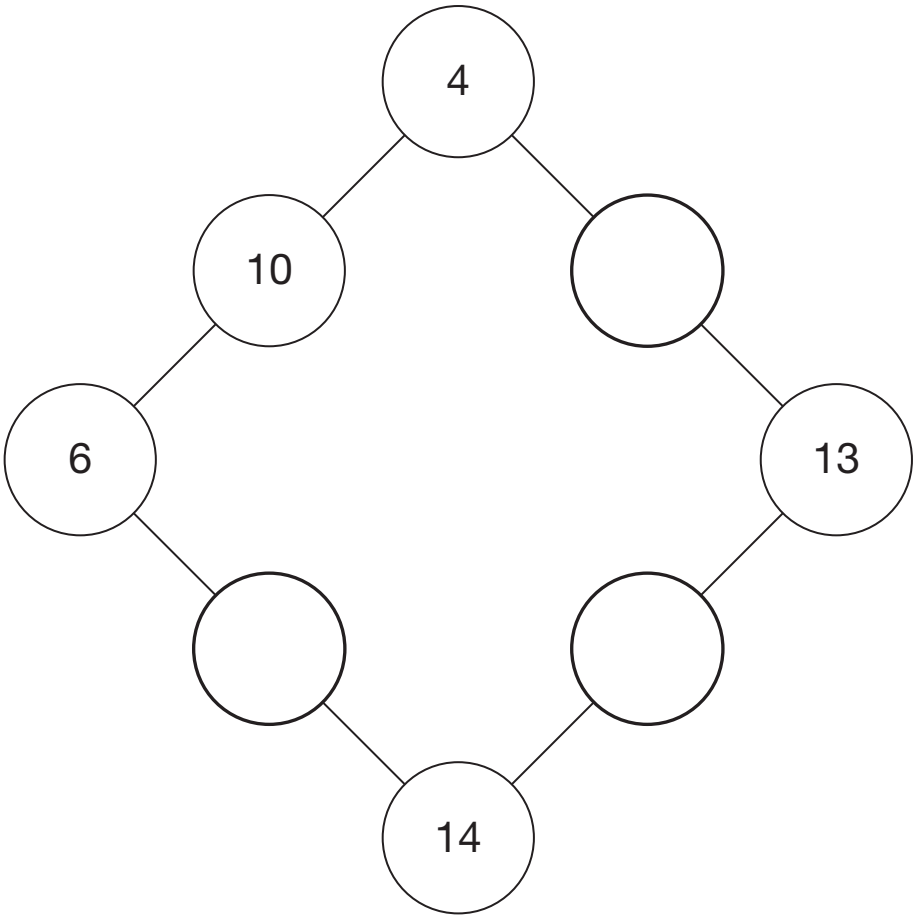
The first one is done for you.

amount	to the nearest pound
£3.20	£3.00
£6.49	£
£9.81	£
£50.75	£

2 marks

9 **Each side** of this number square **adds to 20**

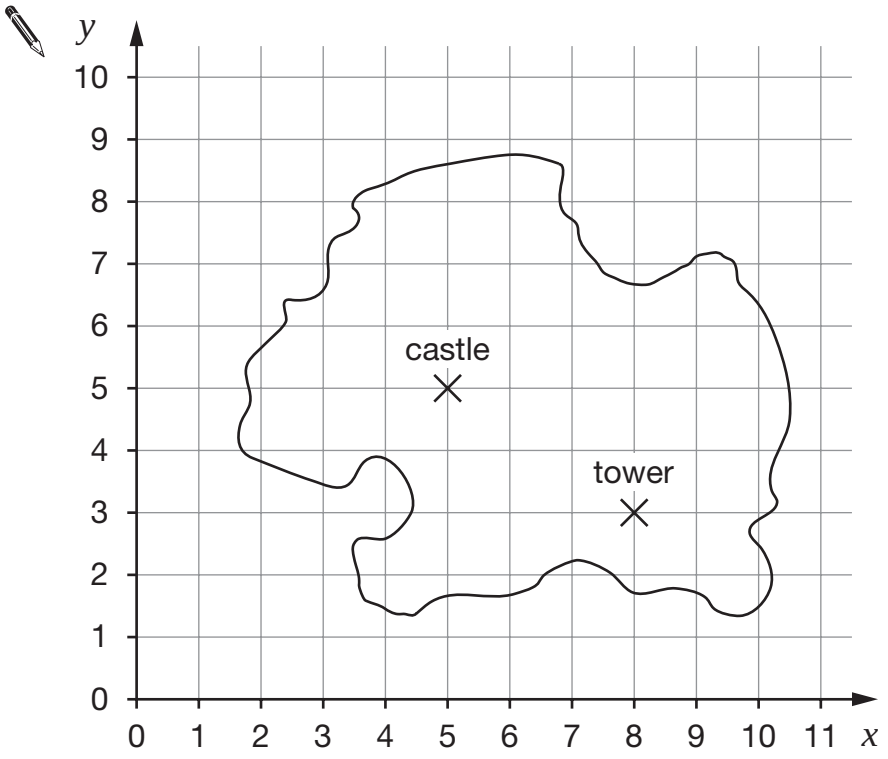
Write the missing numbers.



1 mark

1 mark

10 Look at this map of an island drawn on a square grid.



(a) The coordinates of the castle are (5, 5)

Write the coordinates of the **tower**.

(_____ , _____)

1 mark

(b) There is a boat at (3, 0)

Mark this point on the grid with a cross.

1 mark

11 Tom sells different coloured tickets for a raffle.

The table below shows the tickets he sells.

colour of ticket	number sold
red	20
yellow	30
blue	50
white	100

The winning ticket is chosen at random.

Write the correct **colours** to complete the sentences.

It is more likely to be a **yellow** ticket than a _____ ticket.

1 mark

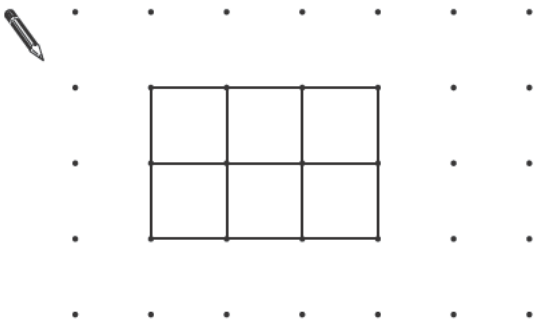
It is **half** as likely to be a _____ ticket as a **white** ticket.

1 mark

There is an **even** chance it will be a _____ ticket.

1 mark

12 (a) **Shade one third** of this shape.



1 mark

(b) The square grid below shows **part of a shape**.

One-third of the shape has been shaded.

Draw lines to **complete the shape**.

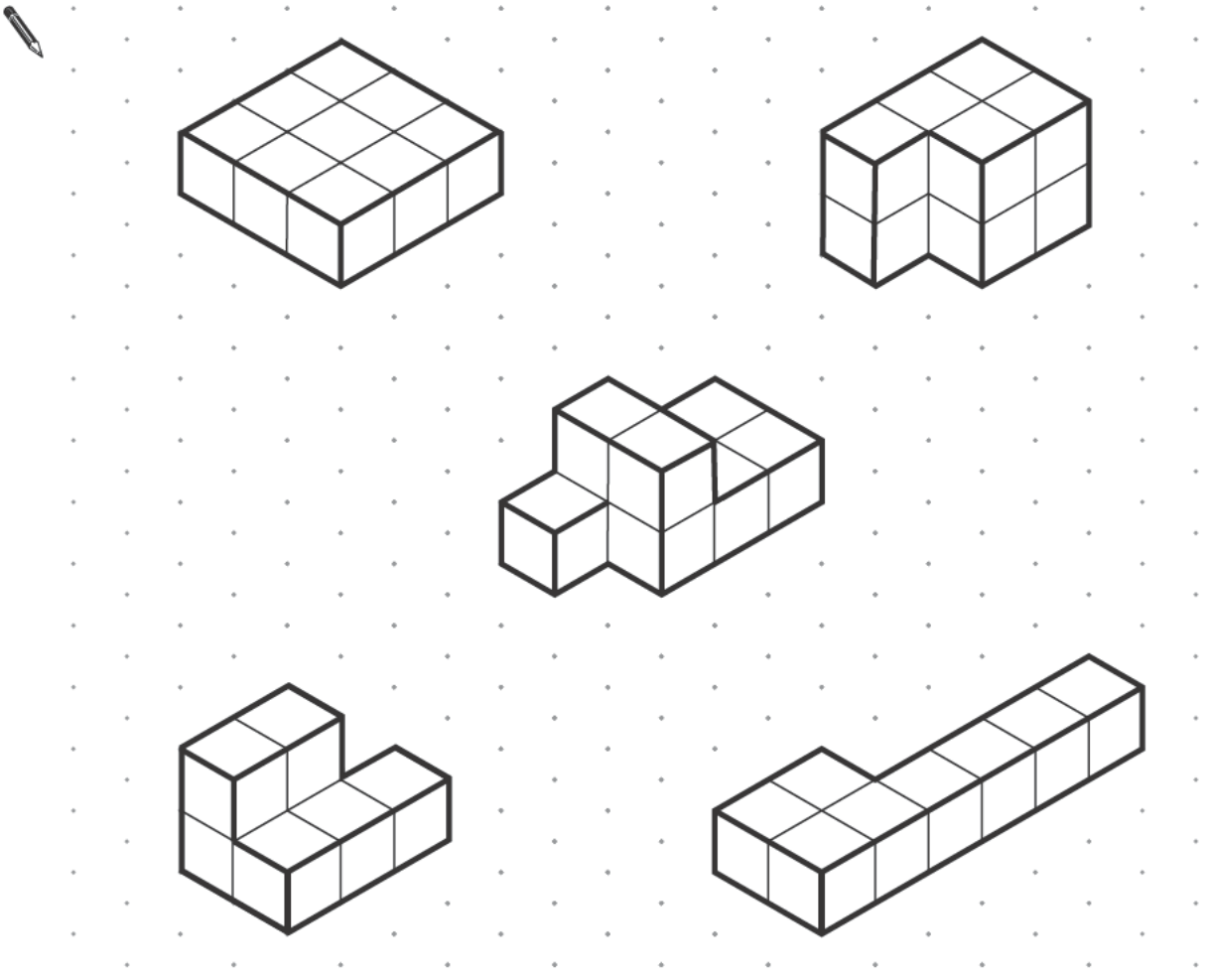
1 mark

13 Erin makes this shape with 5 cubes.

Isometric grid

Then she adds **2 more** cubes to the shape.

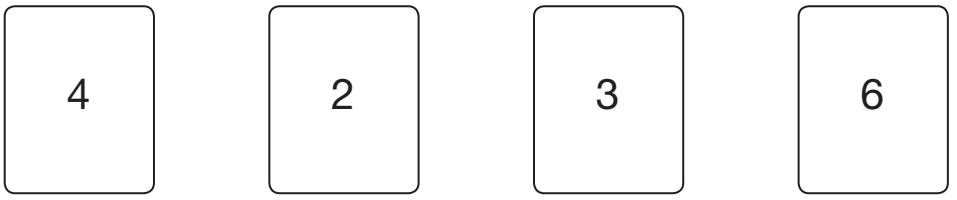
Tick (✓) the diagram that could show her new shape.



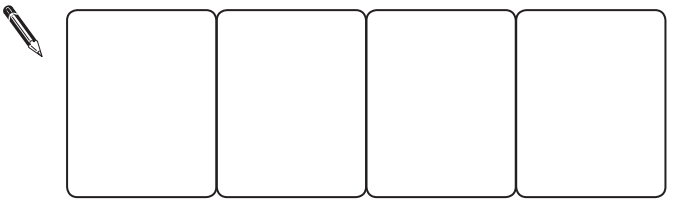
1 mark

Isometric grid

14 Here are four number cards.



(a) Use all four cards to make an **odd** number that is **greater than 3000**



1 mark

(b) Mina says:

> 'I can use all four cards to make an **odd** number that is **greater than 3000** but **smaller than 4000**'

Is she correct?

☐ Yes ☐ No

Explain your answer.

1 mark

15 Look at the rectangle.

Measure **accurately** the length of a **diagonal** of this rectangle.

_____ cm

1 mark

16 Erin thought of a number.

She **added 15** to her number.

Then she **multiplied** the result **by 4**

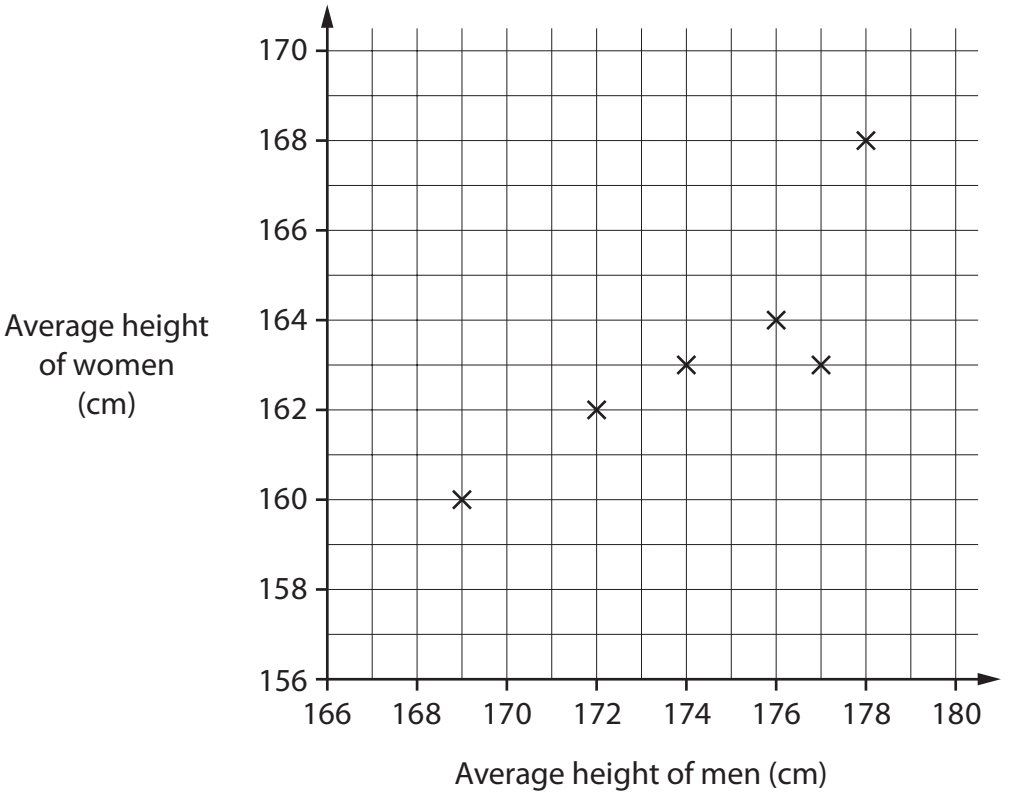
The answer was **164**

What was Erin's number?

_____

1 mark

17 The diagram shows average heights of men and women in six different countries.



(a) In one country the average height of **men** is **172cm**.

What is the average height of **women** in this country?

_____ cm

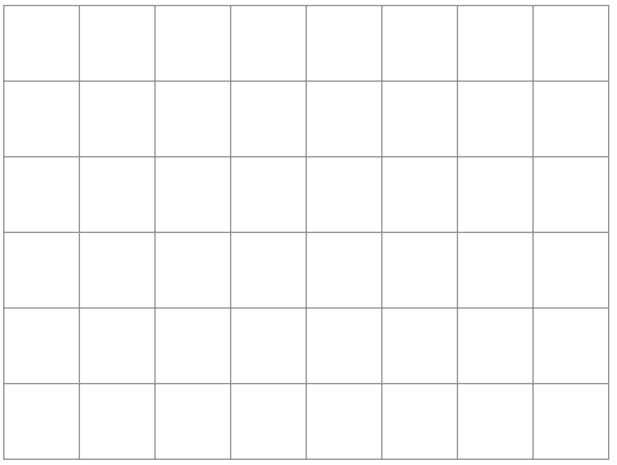
1 mark

(b) In another country the average height of **men** is **12cm more** than the average height of **women**.

On the graph, **put a ring round** the cross for this country.

1 mark

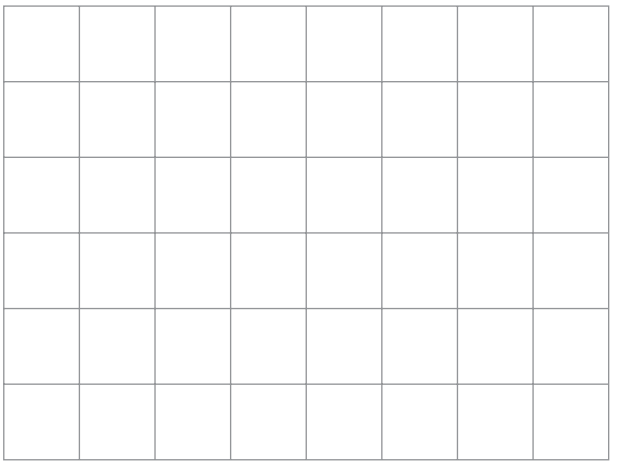
18 (a) Draw a **four-sided** shape that has **two pairs** of parallel sides.



Square grid

1 mark

(b) Draw a **five-sided** shape that has **only one pair** of parallel sides.



Square grid

1 mark

19 One tin holds **2.5 litres** of paint.

I need **20 litres** of paint.

How many of these tins should I buy?

_____ tins

1 mark

20 Look at this equation.

$$y = x + 9$$

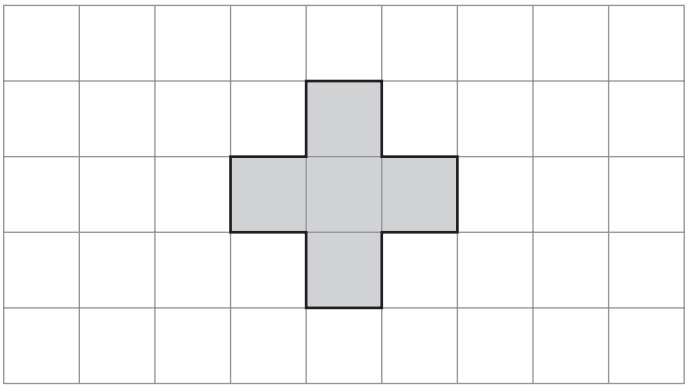
(a) When x **= 17**, what is the value of y?

1 mark

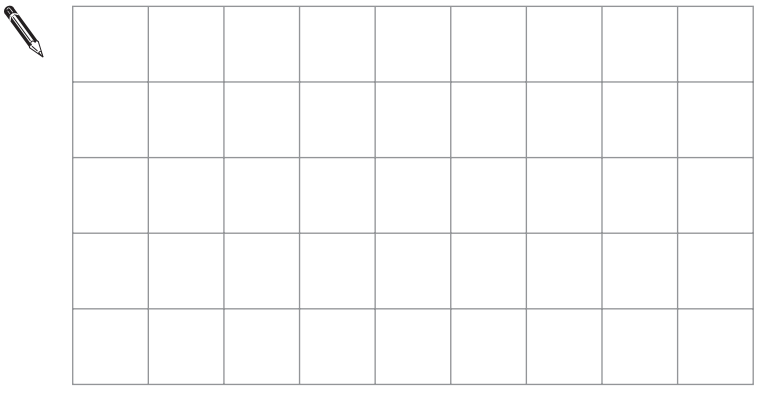
(b) When y **= 17**, what is the value of x?

1 mark

21 Tom uses 5 squares to make this shape on a centimetre square grid.



On the centimetre square grid below draw a different shape. It **must** have a **smaller perimeter** than Tom's shape but the **same area**.



1 mark

END OF TEST

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