MATHEMATICS

KEY STAGE 2 2001

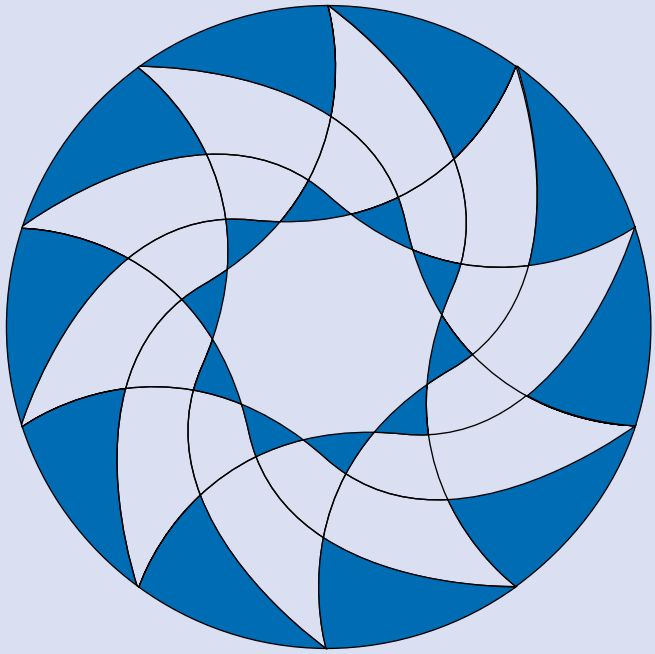
TEST B

LEVELS 3–5

CALCULATOR ALLOWED

PAGE	MARKS
3	
5	
7	
9	
11	
13	
15	
17	
TOTAL	

BORDERLINE CHECK	



First Name

Last Name

School

Instructions

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

Work as quickly and as carefully as you can.

You have **45 minutes** for this test.

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.

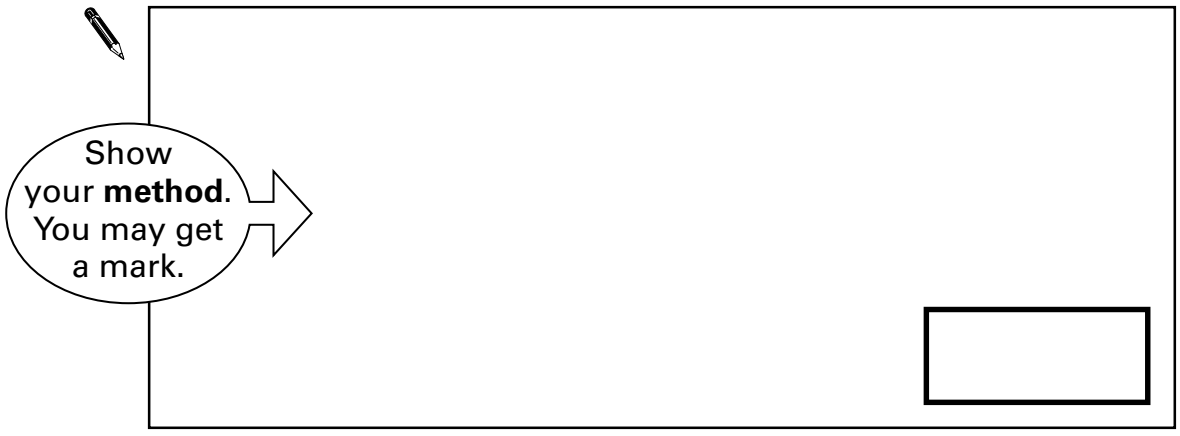
If you finish before the end, **go back and check your work**.

Follow the instructions for each question carefully.

This shows where you need to put the answer.

If you need to do working out, you can use any space on a page.

Some questions have an answer box like this:



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

1 Circle **three** numbers which **add** to make **190**

10 30 50 70 90

1

1 mark

2 Write in the **missing** number.

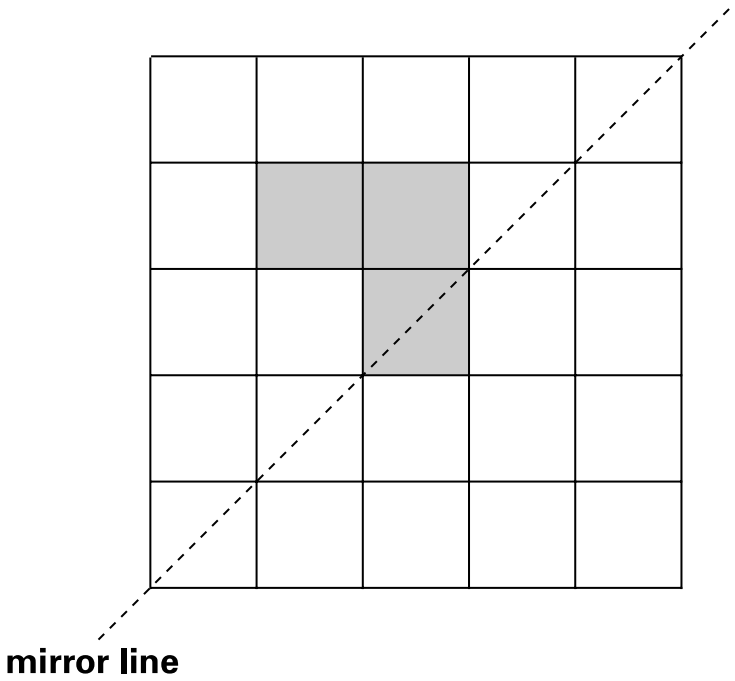
8 × ☐ = 400

2

1 mark

3 Shade in **two more squares** to make this design symmetrical about the mirror line.

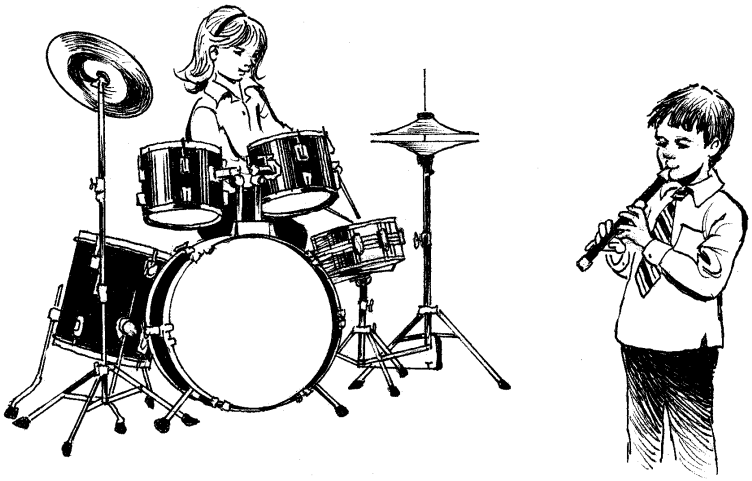
You may use a mirror or tracing paper.



3

1 mark

4



This chart shows the musical instruments some children play.

	Lena	John	Rashid	Nicola	Yin
drums	✓	✓		✓	
keyboard			✓		
trumpet	✓				✓
recorder			✓	✓	✓
piano	✓	✓	✓		

Who plays **both recorder and drums**?

. . . . . .

4a

1 mark

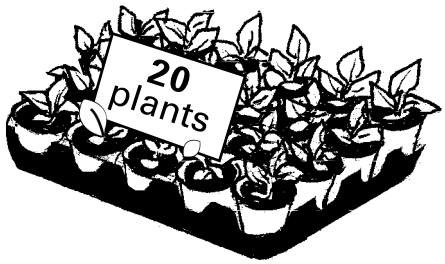
How many children play **more than two** musical instruments?

4b

1 mark

Total

5 Plants are sold in trays of **20**



Ivana buys **7 trays** of plants.

How many plants is this?

5a

1 mark

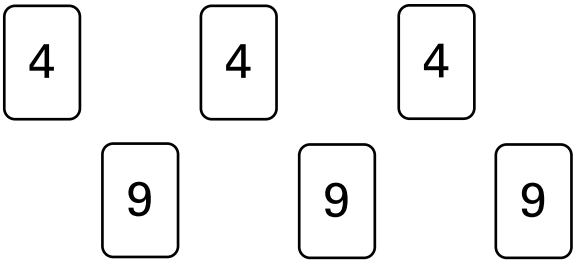
David wants **240 plants**.

How many trays does he need to buy?

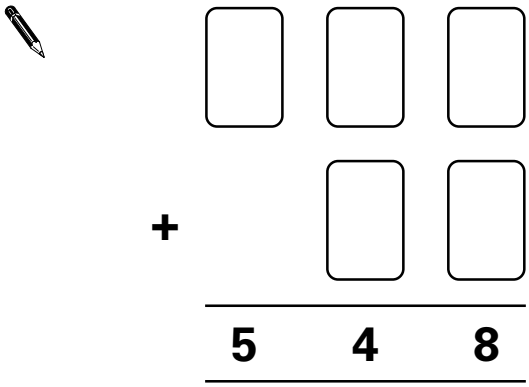
5b

1 mark

6 Here are some number cards.



Use **five of the number cards** to make this correct.



6

2 marks

7 Write in what the missing numbers could be.

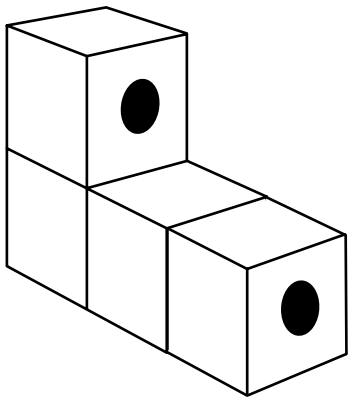
7

1 mark

Total

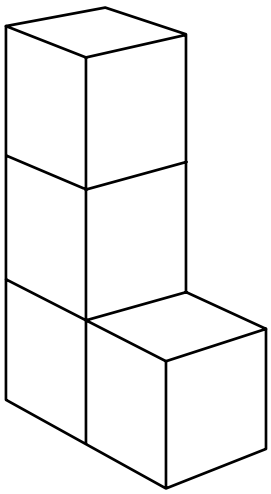
8 Tom makes this shape from four cubes stuck together.

Two circles are drawn on the shape.



Tom moves the shape.

Draw the **circles** on the shape in its new position.



8

1 mark

9

Boat Hire	
Motor boats £1.50 for 15 minutes	**Rowing boats** £2.50 for 1 hour

How much does it cost to hire a **rowing boat** for three hours?

£

9a

1 mark

Sasha pays **£3.00** to hire a **motor boat**.

She goes out at **3:20 pm**.

By what time must she **return**?

pm

9b

1 mark

Total

10

This is the cost to visit the waxworks.

Adults	£8.50
Children	£4.50

On Friday morning **12 adults** and **20 children** visit the waxworks.

How much do they pay altogether?

Show your **method**. You may get a mark.

£

10a
2 marks

Guide books cost **£1.50** each.

The waxworks sells **£24** worth of **guide books**.

How many guide books is this?

10b
1 mark

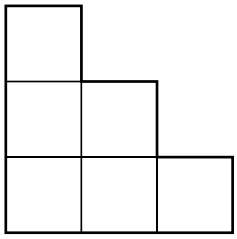
11 Circle **two numbers** which have a **difference of 2**

–1 – 0.5 0 0.5 1 1.5

11

1 mark

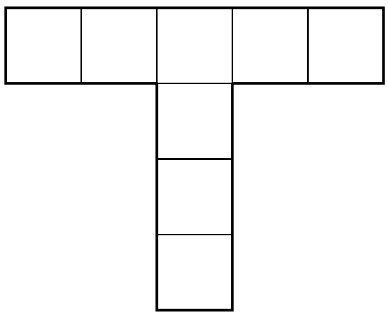
12 Shade **one third** of this shape.



12a

1 mark

Shade **one quarter** of this shape.



12b

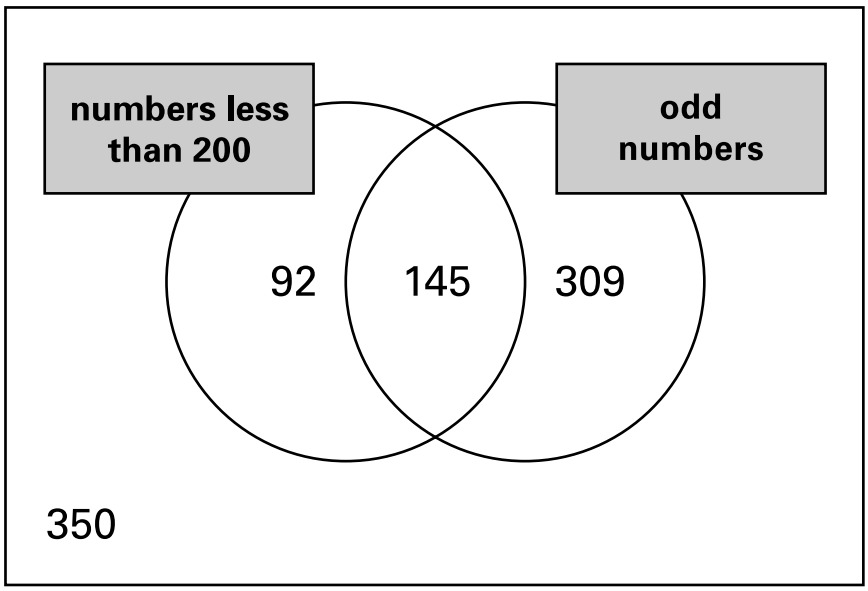
1 mark

Total

13 Write these numbers in the correct places on the Venn diagram.

Some numbers are already placed.

99 170 221

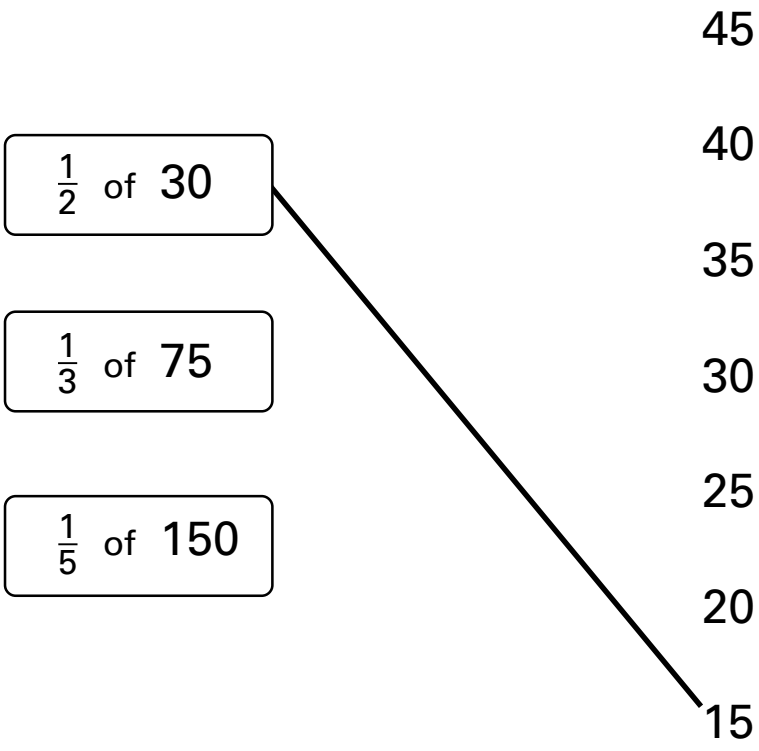


13

2 marks

14 Match each box to the correct number.

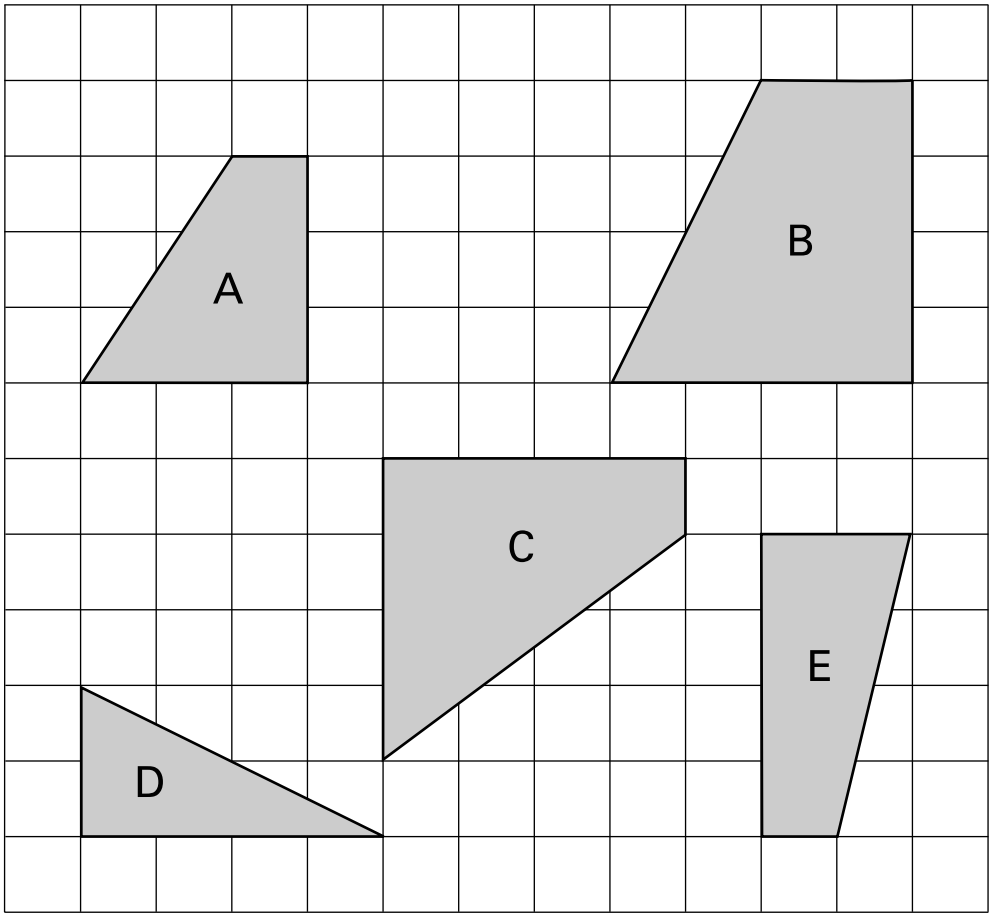
One has been done for you.



14

1 mark

15 Here are five shapes on a square grid.



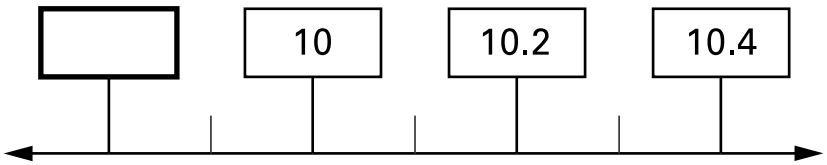
Which **two** shapes fit together to make a **square**?

. . . . . and . . . . . .

15

1 mark

16 Write in the **missing** number on this number line.

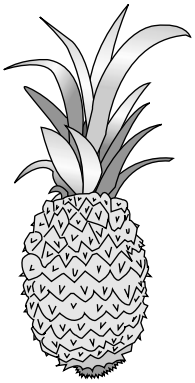


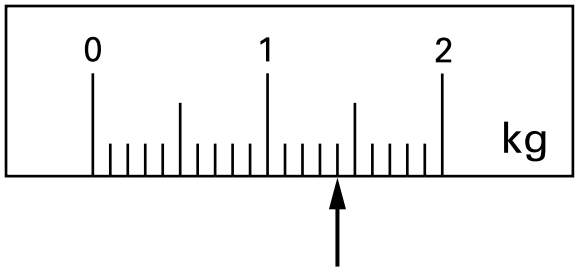
16

1 mark

Total

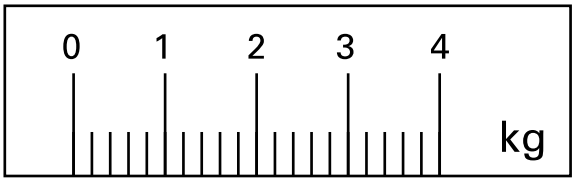
17 On this scale, the arrow (↑) shows the weight of this pineapple.





Here is a **different** scale.

Mark with an arrow (↑) the weight of the **same** pineapple.

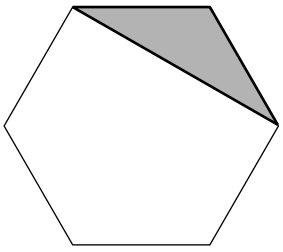


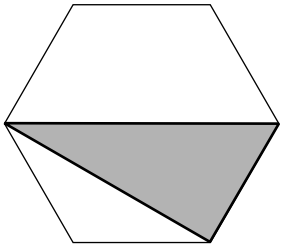
17

1 mark

18 These two shaded triangles are each inside a regular hexagon.

Under each hexagon, put a ring around the correct name of the shaded triangle.





equilateral	equilateral
isosceles	isosceles
scalene	scalene

18

1 mark

19 Here is a recipe for raspberry ice cream.

raspberry ice cream for 8 people
$\frac{1}{2}$ litre of cream
1kg raspberries
250g sugar

This recipe is for **8 people**.

Josie makes enough raspberry ice cream for **12 people**.

How much **cream** does she use?

litre

19a

1 mark

Fred makes raspberry ice cream in the same way.

He uses $2\frac{1}{2}$ **kg** of **raspberries**.

How much **sugar** does he use?

Show your **method**. You may get a mark.

g

19b

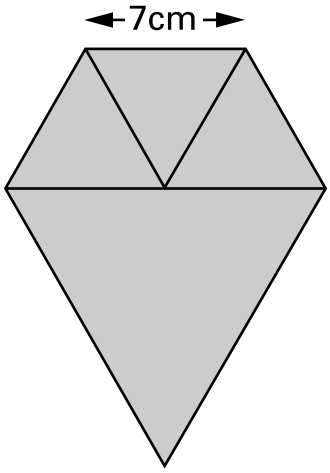
2 marks

Total

20 Lauren has **three small equilateral triangles** and **one large equilateral triangle**.

The small triangles have sides of **7 centimetres**.

Lauren makes this shape.



Not actual size

Calculate the **perimeter** of the shape.

Do **not** use a ruler.

cm

20

1 mark

21 Write in the missing number.

404.09 ÷ ☐ = 8.5

21

1 mark

22 The rule for this sequence of numbers is **'add 3 each time'**.

1 4 7 10 13 16 ...

The sequence continues in the same way.

Mary says,

'No matter how far you go there will never be a multiple of 3 in the sequence'.

Is she correct?
Circle Yes or No.

Yes / No

Explain how you know.

. . . . . .

. . . . . .

. . . . . .

22

1 mark

23 Write the **three prime numbers** which multiply to make **231**

☐ × ☐ × ☐ = 231

23

1 mark

Total

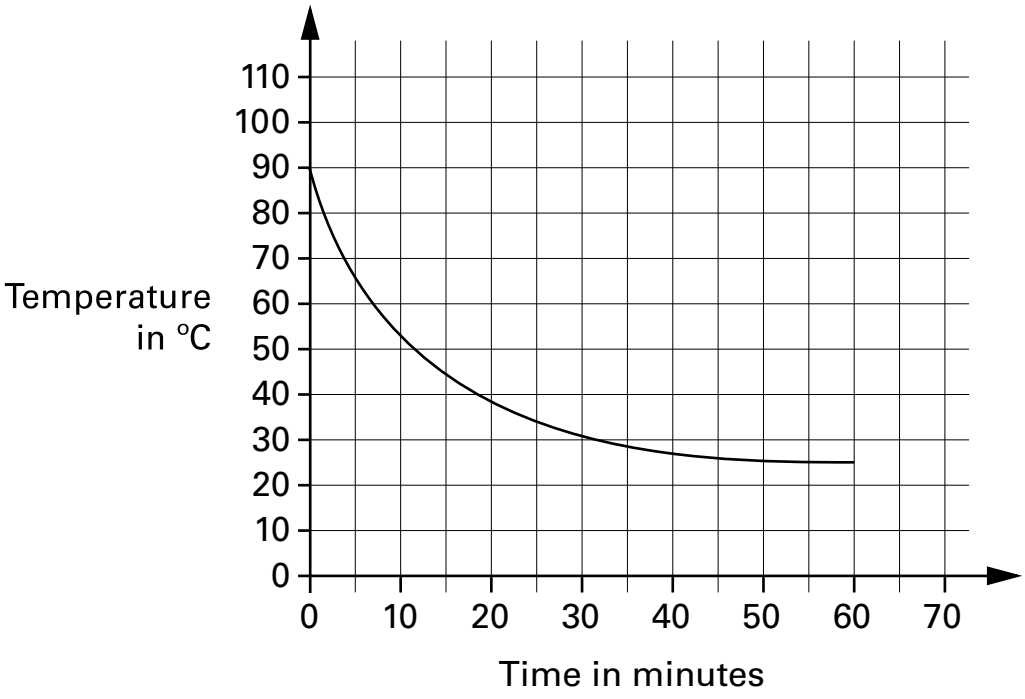
24 Calculate $\frac{5}{12}$ of **378**

24

1 mark

25 A hot liquid is left to cool in a science experiment.

This graph shows how the temperature of the liquid changes as it cools.



Read from the graph **how many minutes** it takes for the temperature to reach **40°C**

minutes

25a

1 mark

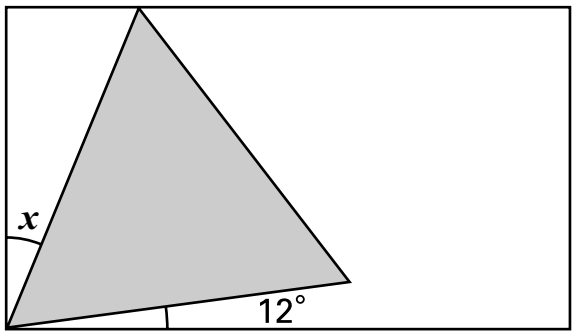
Read from the graph **how many minutes** the temperature is **above 60°C**

minutes

25b

1 mark

26 Here is an **equilateral triangle** inside a **rectangle**.



Not to scale

Calculate the value of angle x.

Do **not** use a protractor (angle measurer).

Show your **method**. You may get a mark.

° 26

2 marks

27 **p** and **q** each stand for whole numbers.

$$p + q = 1000$$

p is 150 **greater** than **q**.

Calculate the numbers **p** and **q**.

Show your **method**. You may get a mark.

p = **q =** 27

2 marks

Total

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