

MATHEMATICS

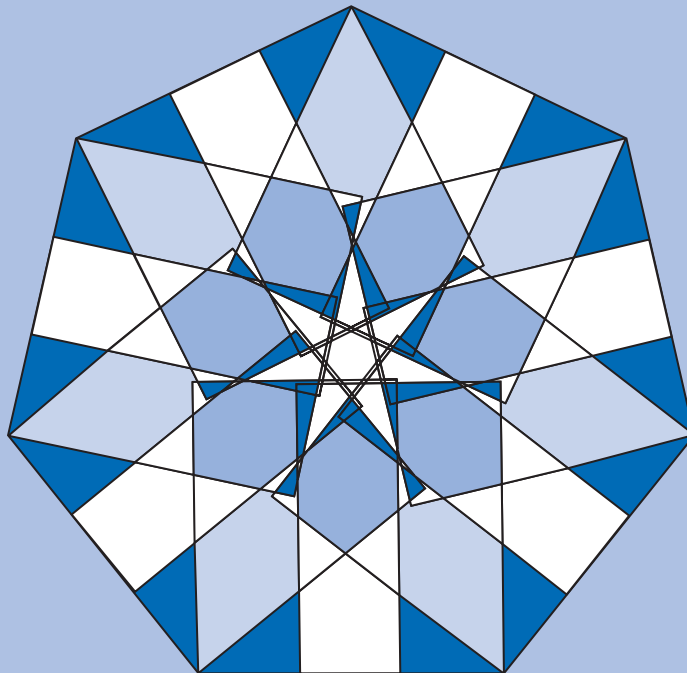
KEY STAGE 2 2002

TEST B LEVELS
3-5

CALCULATOR ALLOWED

| PAGE | MARKS |
|--------------|-------|
| 5 | |
| 7 | |
| 9 | |
| 11 | |
| 13 | |
| 15 | |
| 17 | |
| 19 | |
| 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:



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

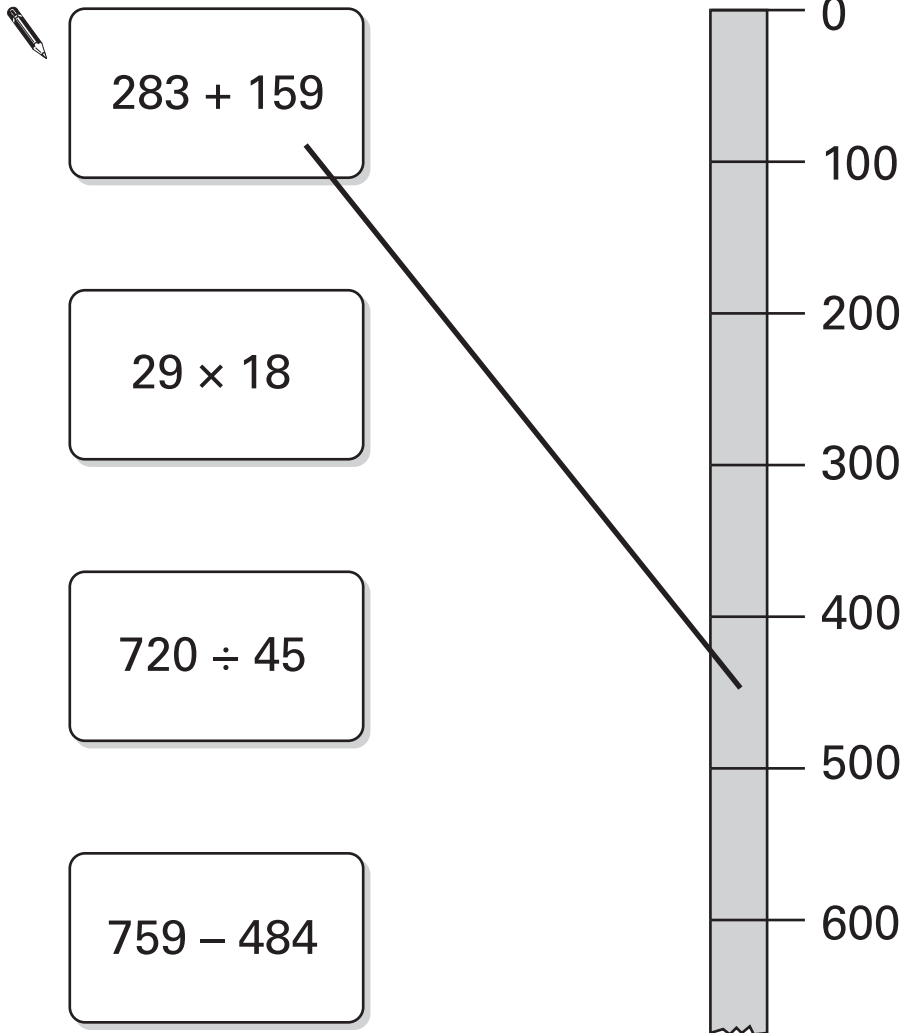


For these questions you may get a mark for showing your method.

1

Draw a line from each card to the correct part of the number line.

One has been done for you.
You may use a calculator.



1a
1 mark

1b
1 mark

1c
1 mark

2

Write in the missing numbers.

$22 \times \square = 660$

$\square - 75 = 109$

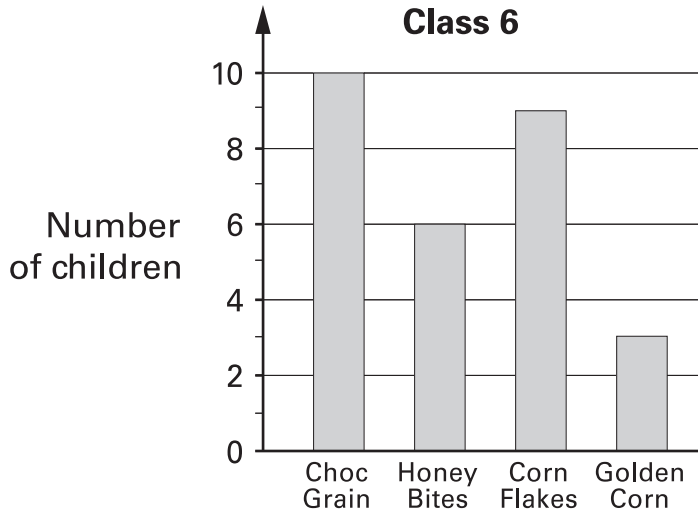
2a
1 mark

2b
1 mark

3

Tom does a survey of children's favourite breakfast cereals.

These are the results for Class 6

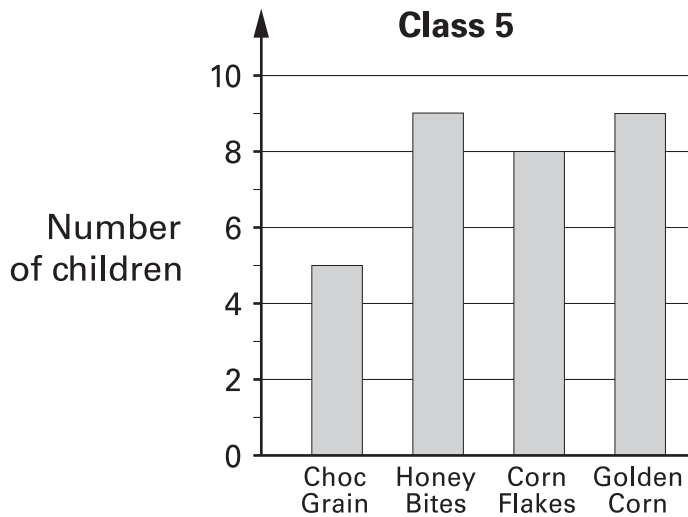


How many **more** children in Class 6 prefer **Choc Grain** than **Golden Corn**?



3a
1 mark

These are the results for Class 5



How many children in **both** classes like **Honey Bites** best?

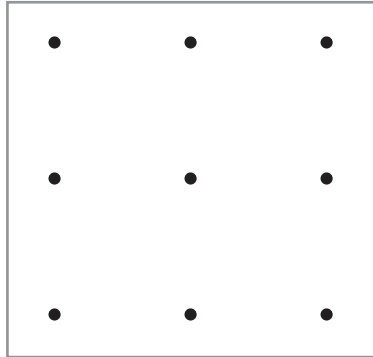


3b
1 mark

4

On the grid join dots to make a triangle which does **not** have a **right angle**.

Use a ruler.

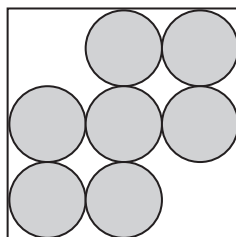
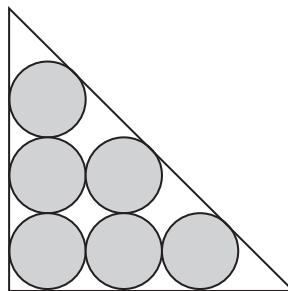
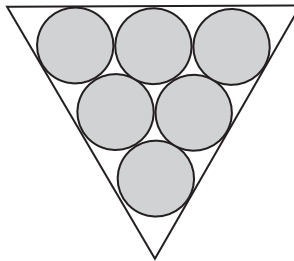


4
1 mark

5

Use a ruler to draw **one** line of symmetry on **each** of these designs.

You may use a mirror or tracing paper.



5
2 marks

6



A box of four balls costs **£2.96**

How much does each ball cost?



6a
1 mark

Dean and Alex buy **3 boxes** of balls between them.

Dean pays **£4.50**

How much must Alex pay?



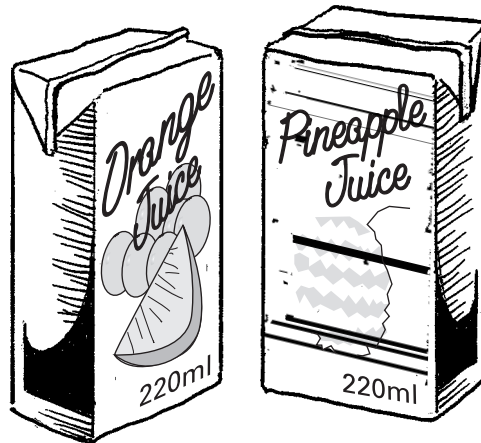
Show your **method**.
You may get a mark.

£

6b
2 marks

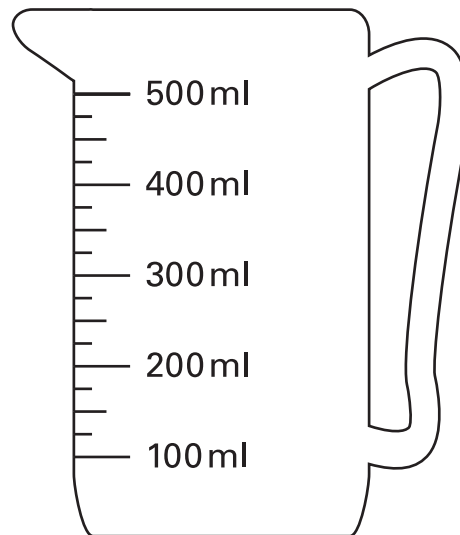
7

Mina has two cartons of juice.
Each carton contains **220ml**.



She empties them both into this jug.

Draw an arrow (→) to show the level of the mixture in the jug.

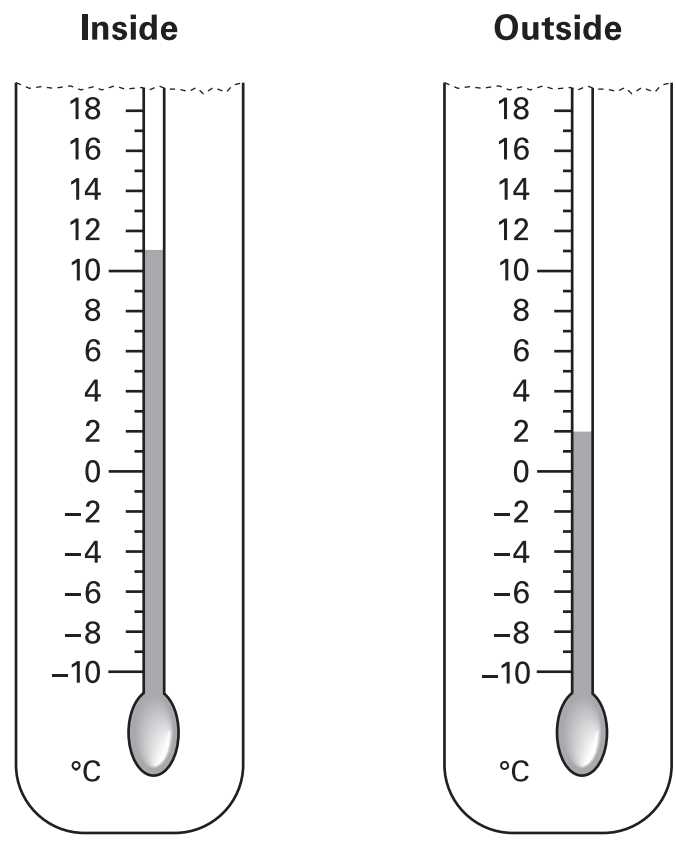


7

1 mark

8

Two thermometers show the temperature inside and outside a greenhouse on a day in January.



How many degrees **warmer** was it inside the greenhouse than outside?

 °C

8a
1 mark

Later the temperatures were

| inside | outside |
|--------|---------|
| -1°C | -8°C |

What is the difference between these two temperatures?

 °C

8b
1 mark

9

Jemma thinks of a number.

She says,

***'Add 3 to my number and then
multiply the result by 5
The answer is 35'***

What is Jemma's number?



9a

1 mark

Riaz thinks of a number.

He says,

***'Halve my number and then add 17
The answer is 23'***

What is Riaz's number?



9b

1 mark

10

Write in the missing number.



$$32.45 \times \boxed{} = 253.11$$

10

1 mark

11



185 people go to the school concert.

They pay £1.35 each.

How much ticket money is collected?

 £

11a
1 mark

Programmes cost 15p each.

Selling programmes raises £12.30

How many programmes are sold?

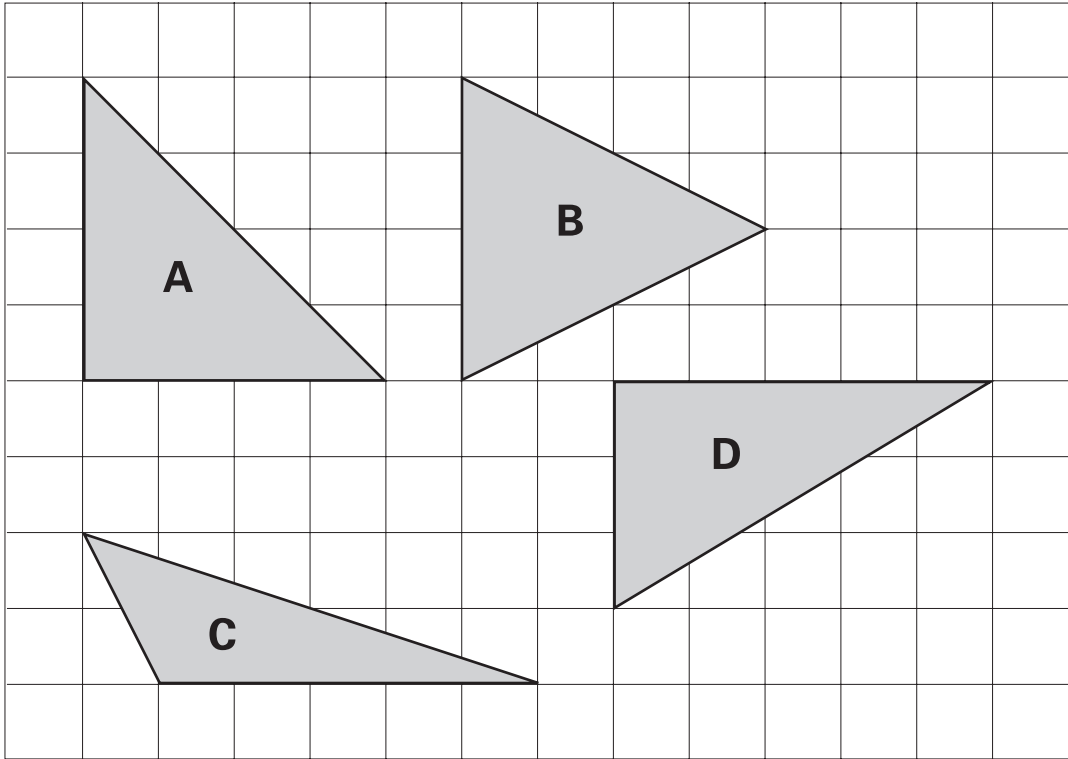


Show your **method**.
You may get a mark.

11b
2 marks

12

Here are four triangles drawn on a square grid.



Write the letter for each triangle in the correct region of the sorting diagram.

One has been done for you.



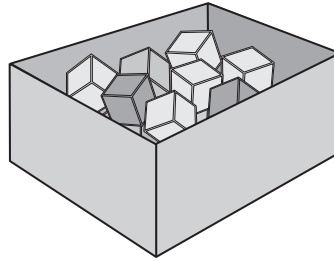
| | has a right angle | has an obtuse angle | has 3 acute angles |
|-------------------------|--------------------------|----------------------------|---------------------------|
| is isosceles | A | | |
| is not isosceles | | | |

12
2 marks

13

There are 24 coloured cubes in a box.

Three-quarters of the cubes are red,
four of the cubes are blue
and the rest are green.



How many **green** cubes are in the box?

✎

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

✎

13a
2 marks

One more **blue** cube is put into the box.

What fraction of the cubes in the box are **blue** now?

✎

13b
1 mark



14



The table shows the cost of coach tickets to different cities.

| | | Hull | York | Leeds |
|-------|--------|--------|--------|--------|
| Adult | single | £12.50 | £15.60 | £10.25 |
| | return | £23.75 | £28.50 | £19.30 |
| Child | single | £8.50 | £10.80 | £8.25 |
| | return | £14.90 | £17.90 | £14.75 |

What is the total cost for a **return** journey to York for one adult and two children?



£

14a

1 mark

How much **more** does it cost for two adults to make a **single** journey to Hull than to Leeds?



£

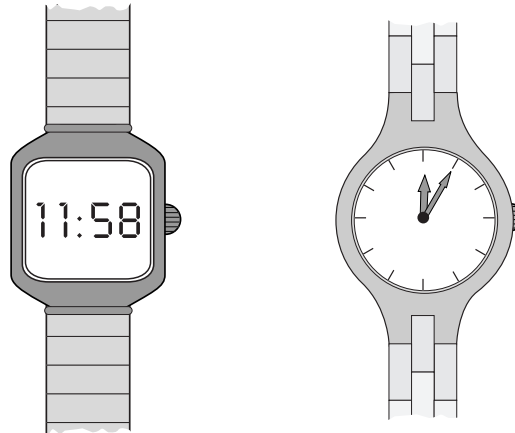
14b

1 mark

15

One of these watches is **3 minutes fast**.

The other watch is **4 minutes slow**.



What is the correct time?



15

1 mark

16

Use a calculator to work out $49.3 \times (2.06 + 8.5)$

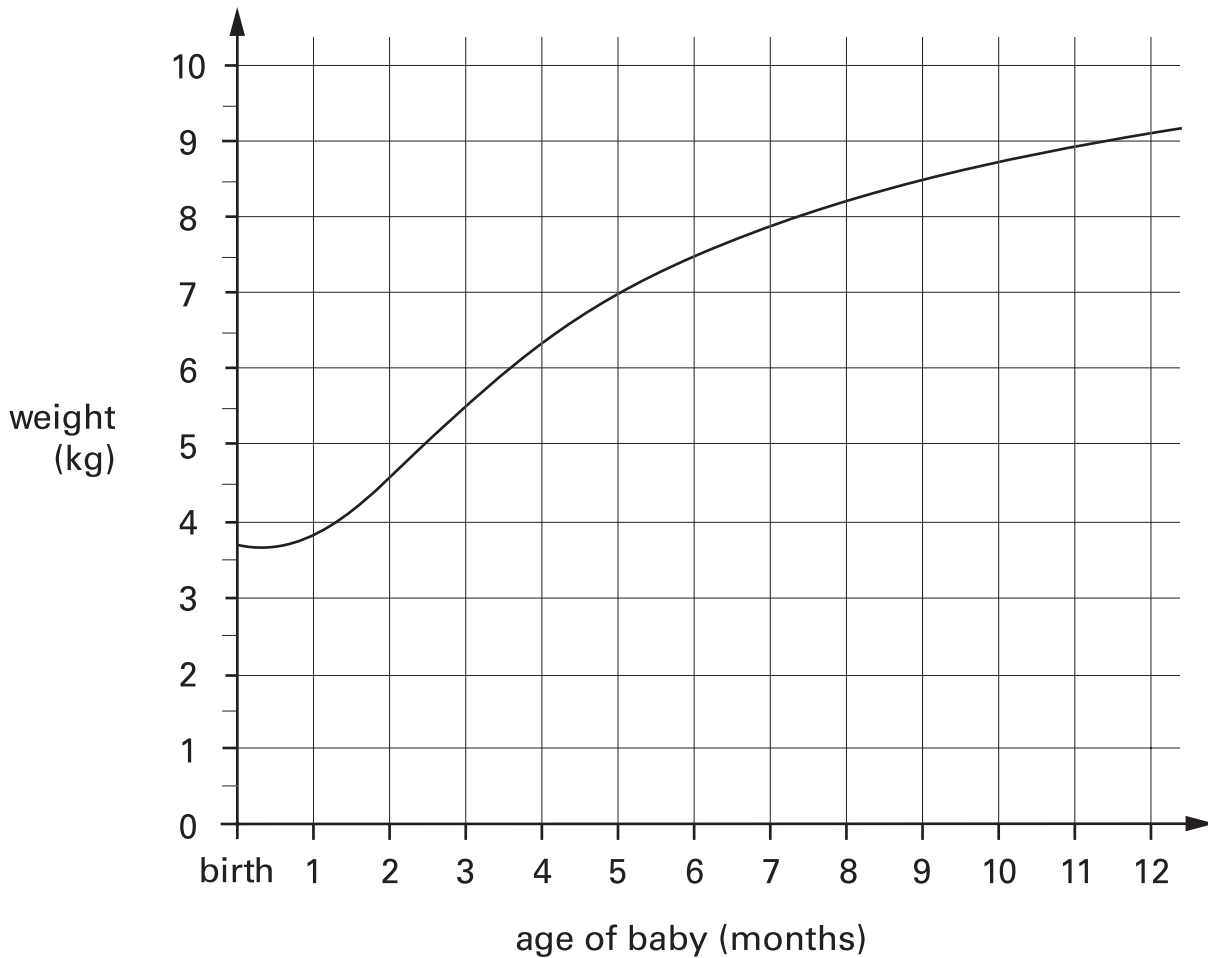


16

1 mark

17

This graph shows how the weight of a baby changed over twelve months.



From the graph, what was the weight of the baby at 10 months?


 kg

17a

1 mark

How much **more** did the baby weigh at 5 months than at birth?


 kg

17b

1 mark

18Circle the number **closest** in value to **0.1**

0.01

0.05

0.11

0.2

0.9

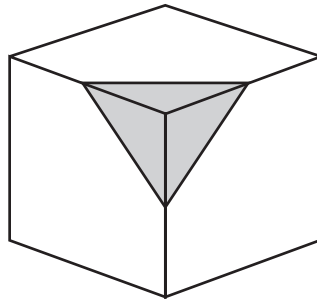


18

1 mark

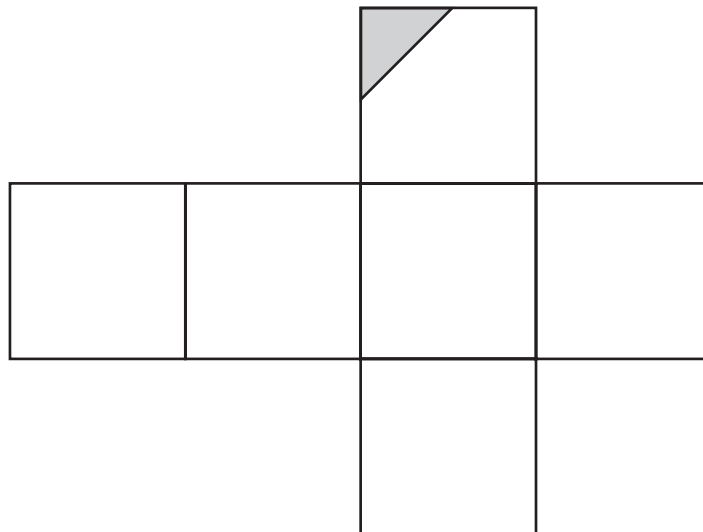
19

A cube has shaded triangles on three of its faces.



Here is the net of the cube.

Draw in the two missing shaded triangles.



19

1 mark



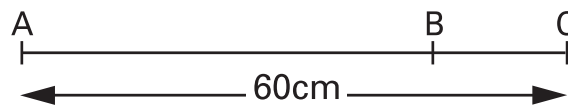
20

Write in what the missing numbers could be.



$$170 + \boxed{} = 220 - \boxed{}$$

20
1 mark

21**Not drawn to scale**The distance from **A to B** is three times as far as from **B to C**.The distance from **A to C** is **60 centimetres**.Calculate the distance from **A to B**.

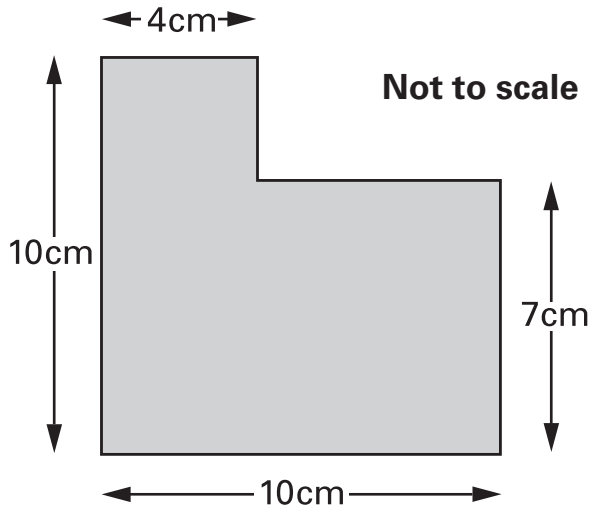
Show
your **method**.
You may get
a mark.


cm

21
2 marks

22

What is the **area** of this shape?





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

22
2 marks

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