

# MATHEMATICS

KEY STAGE 2 2001

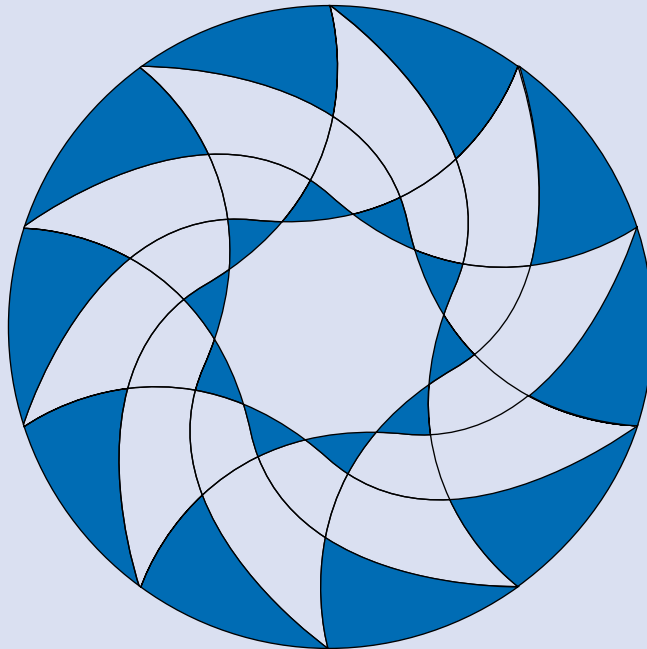
TEST B

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

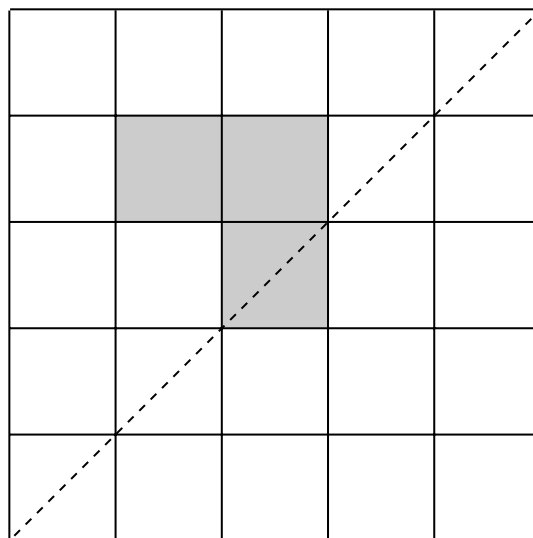
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400

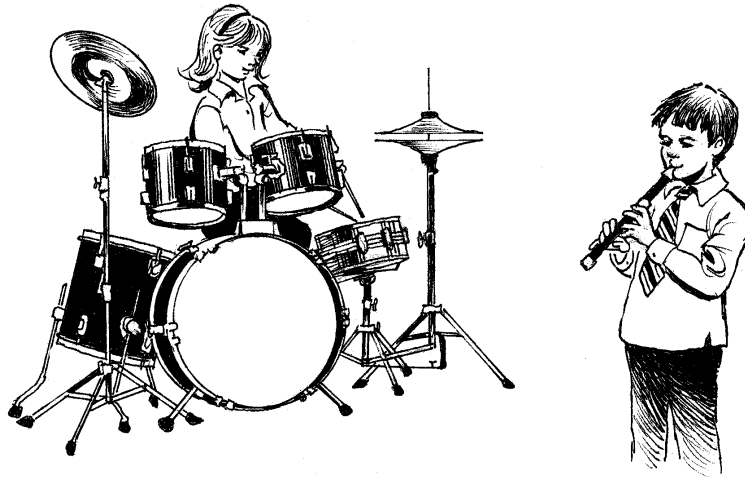
2  
1 mark**3**Shade in **two more squares** to make this design symmetrical about the mirror line.

You may use a mirror or tracing paper.



mirror line

3  
1 mark



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?

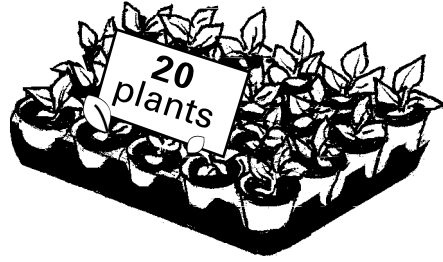



4b

1 mark

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?

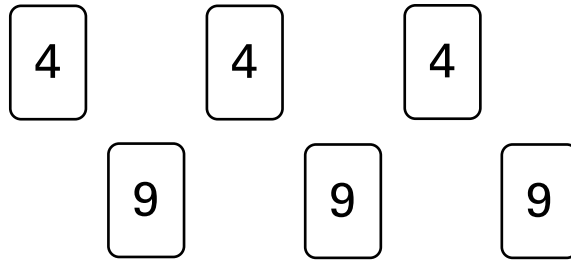


5b

1 mark

**6**

Here are some number cards.

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

$$\begin{array}{r}
 \square \quad \square \quad \square \\
 + \quad \quad \square \quad \square \\
 \hline
 5 \quad 4 \quad 8 \\
 \hline
 \end{array}$$

 6  
2 marks
**7**

Write in what the missing numbers could be.



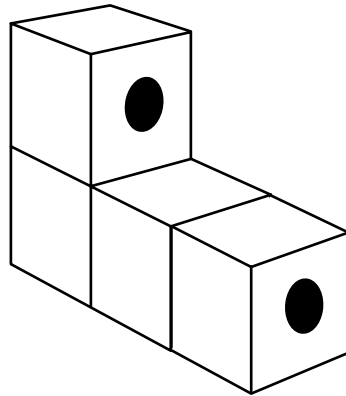
$$(\square \div \square) + 90 = 100$$

 7  
1 mark

8

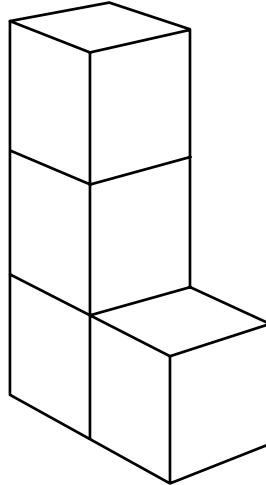
Tom makes this shape from four cubes stuck together.

Two circles are drawn on the shape.



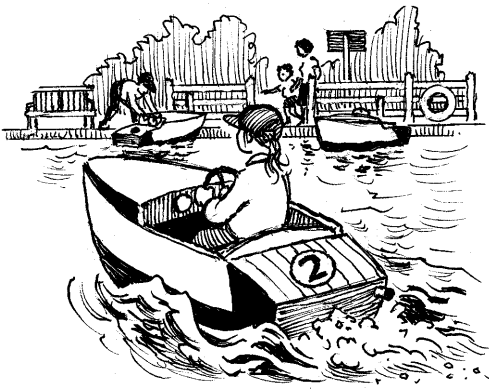
Tom moves the shape.

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



8  
1 mark





Boat Hire	
<b>Motor boats</b> £1.50 for 15 minutes	<b>Rowing boats</b> £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**.

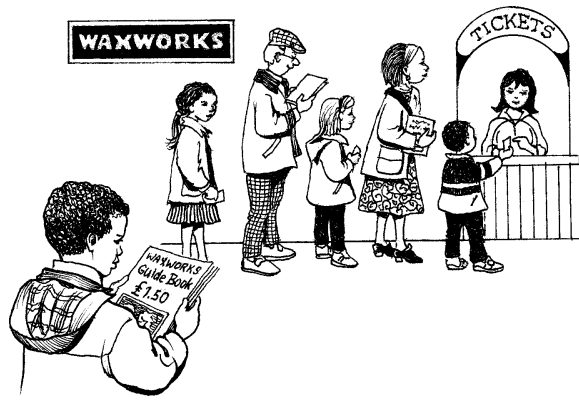
She goes out at **3:20 pm**.

By what time must she **return**?




9b

1 mark





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.

£

Guide books cost **£1.50** each.

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

How many guide books is this?



10a  
2 marks

10b  
1 mark

11

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



-1   -0.5   0   0.5   1   1.5

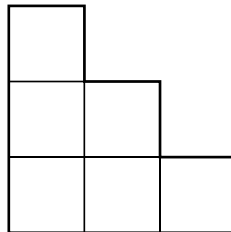


11

1 mark

12

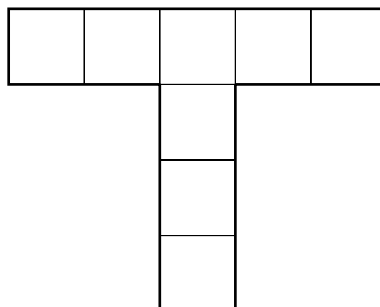
Shade **one third** of this shape.



12a

1 mark

Shade **one quarter** of this shape.



12b

1 mark

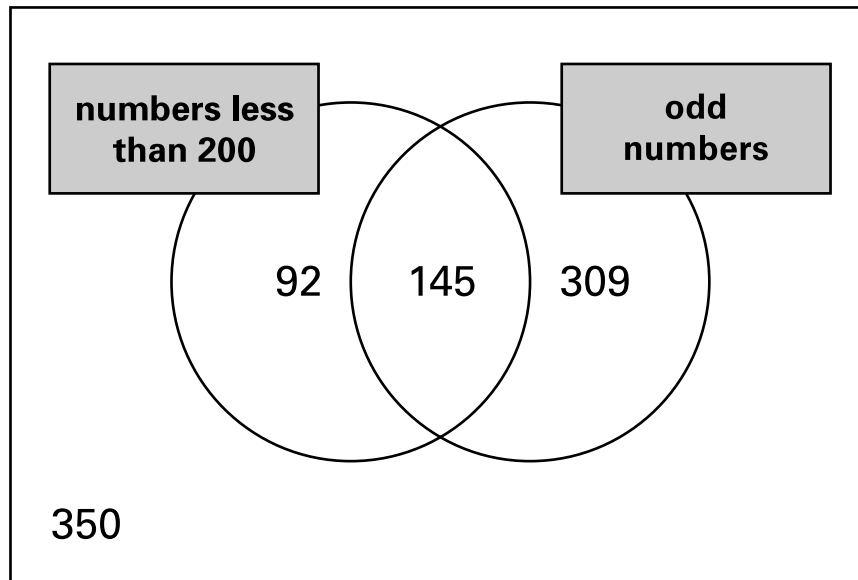


**13**

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

Some numbers are already placed.

99      170      221

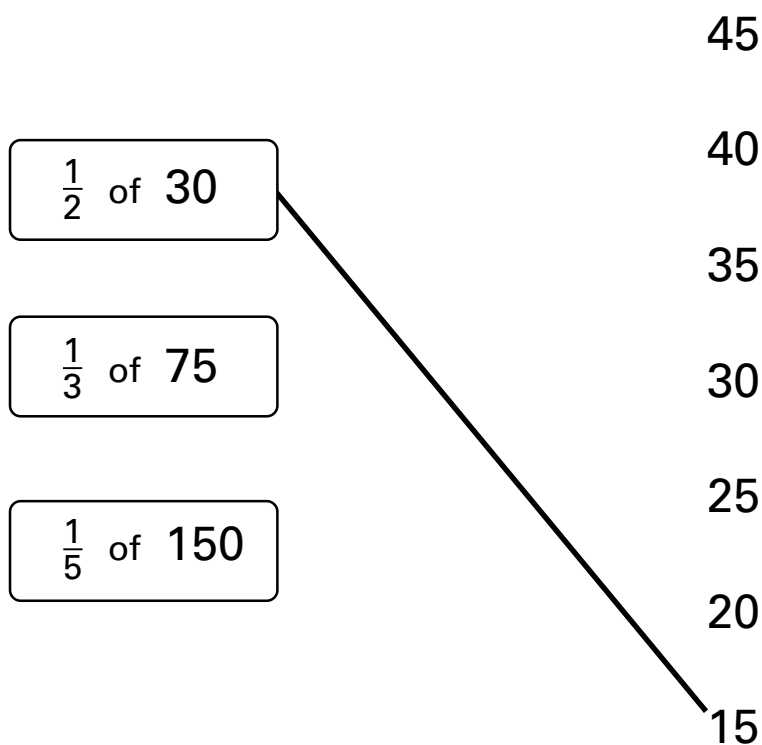


13  
2 marks

**14**

Match each box to the correct number.

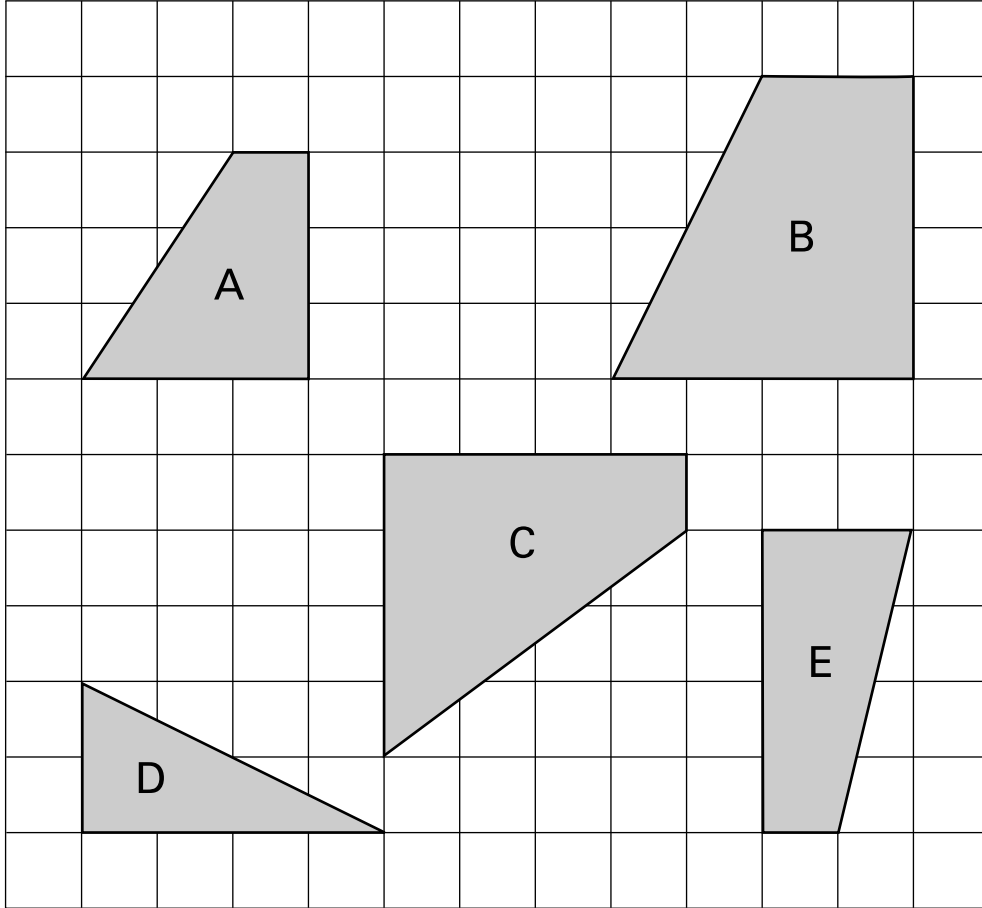
One has been done for you.



14  
1 mark

15

Here are five shapes on a square grid.



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

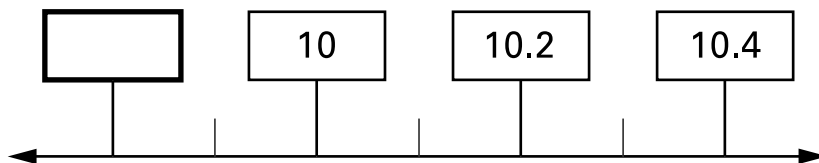


..... and .....

15  
1 mark

16

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

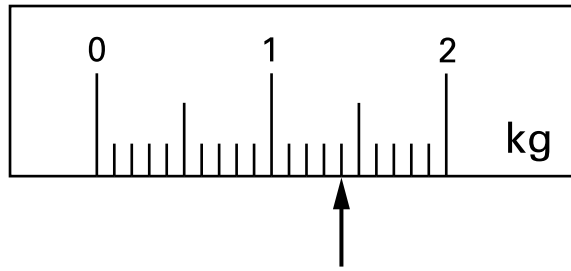
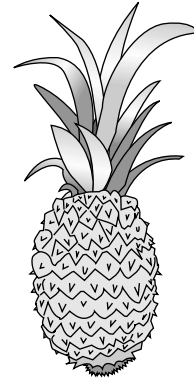


16  
1 mark



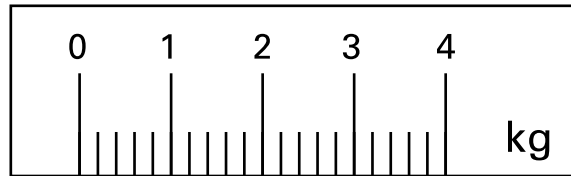
17

On this scale, the arrow ( $\uparrow$ ) shows the weight of this pineapple.



Here is a **different** scale.

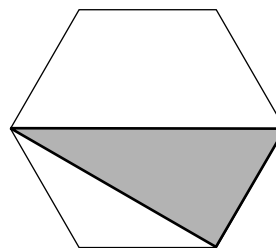
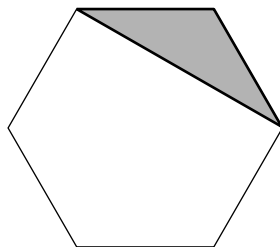
Mark with an arrow ( $\uparrow$ ) the weight of the **same** pineapple.



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

17  
1 mark

18  
1 mark

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

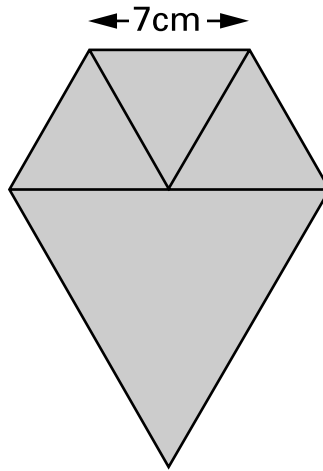
2 marks

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.

  $404.09 \div \boxed{\phantom{000}} = 8.5$

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**



$$\square \times \square \times \square = 231$$

23

1 mark

.....

24

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



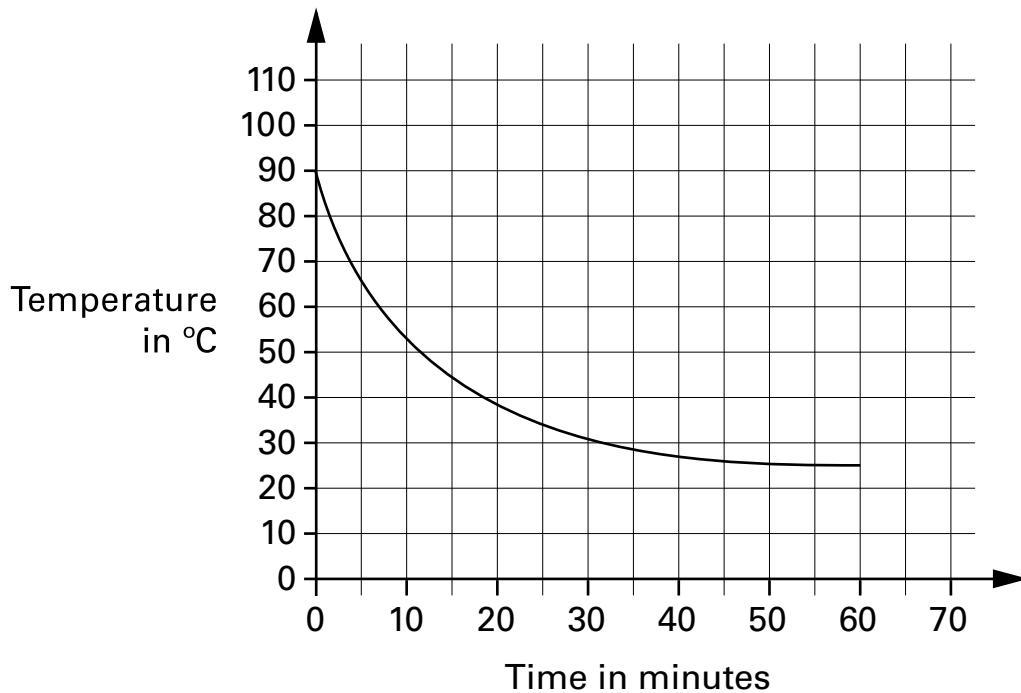
24

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**



25a

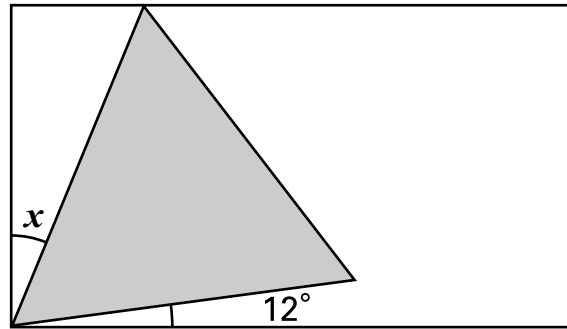
1 mark

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



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

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