

MATHEMATICS

KEY STAGE 2 2001

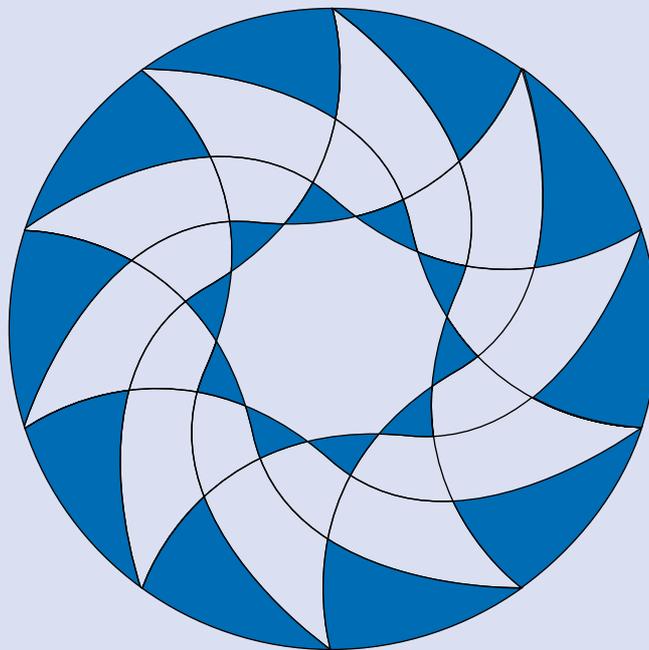
TEST B

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.

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

10

30

50

70

90

1
1 mark**2**Write in the **missing** number.

8

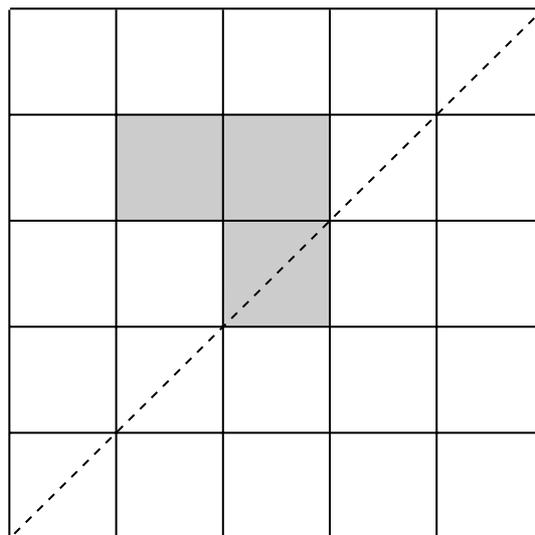
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=

400

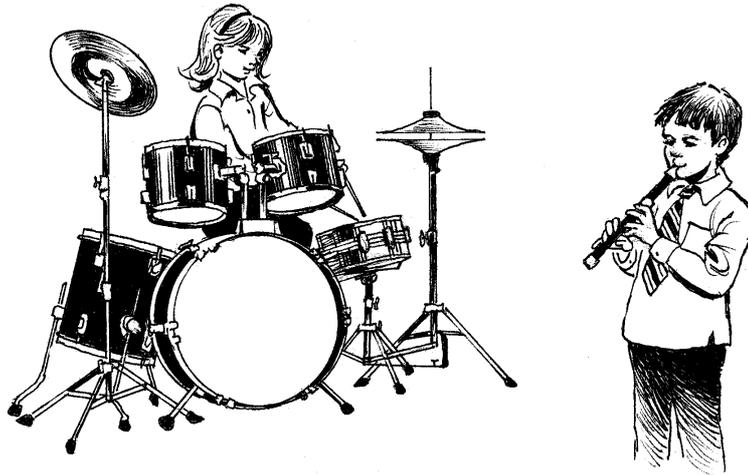
2
1 mark**3**Shade in **two more squares** to make this design symmetrical about the mirror line.

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?

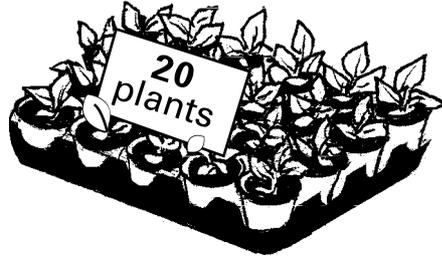


4b

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?

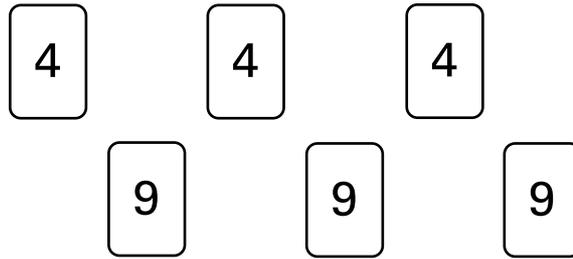


5b

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.



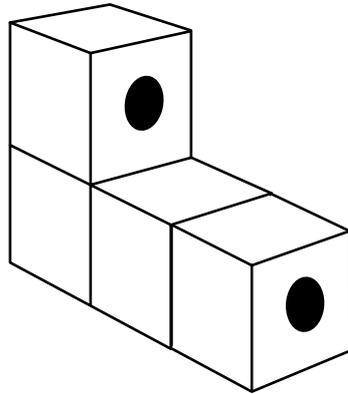
$$(\square \div \square) + 90 = 100$$

7
1 mark

8

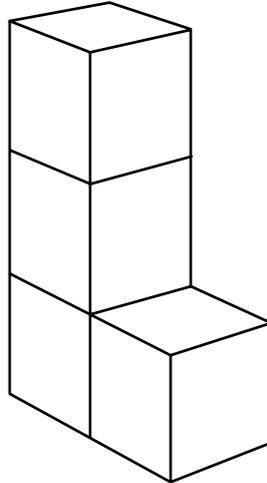
Tom makes this shape from four cubes stuck together.

Two circles are drawn on the shape.



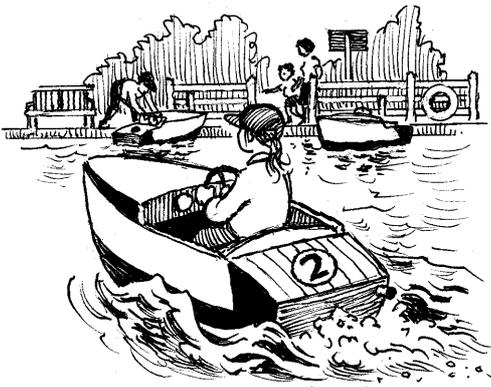
Tom moves the shape.

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



8

1 mark



| Boat Hire | |
|--|---|
| 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**?



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.

£

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**



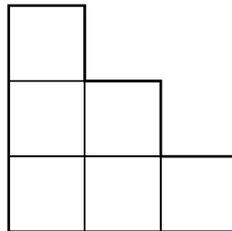
-1 -0.5 0 0.5 1 1.5

11

1 mark

12

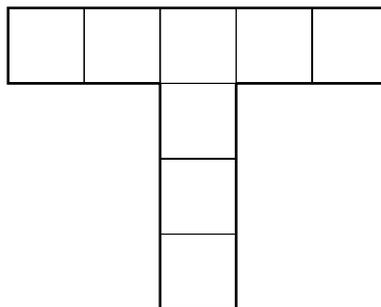
Shade **one third** of this shape.



12a

1 mark

Shade **one quarter** of this shape.



12b

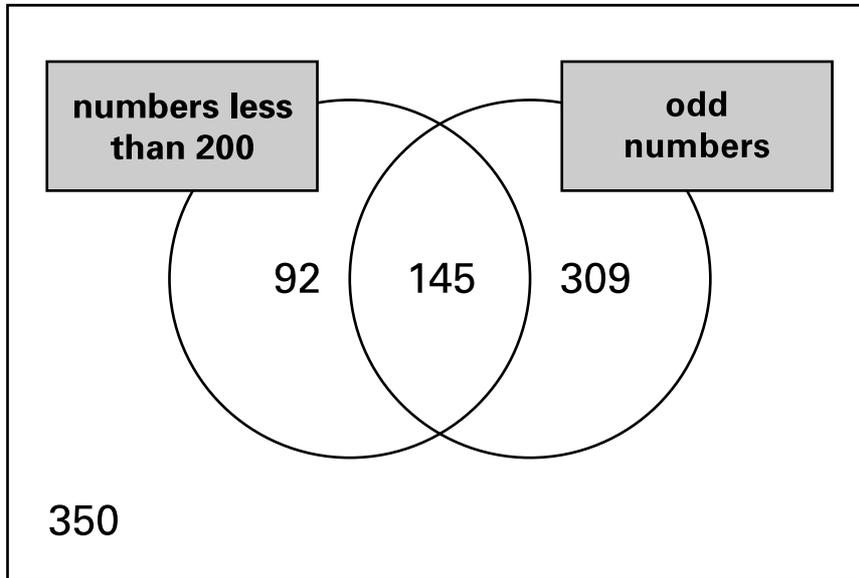
1 mark

13

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

Some numbers are already placed.

99 170 221

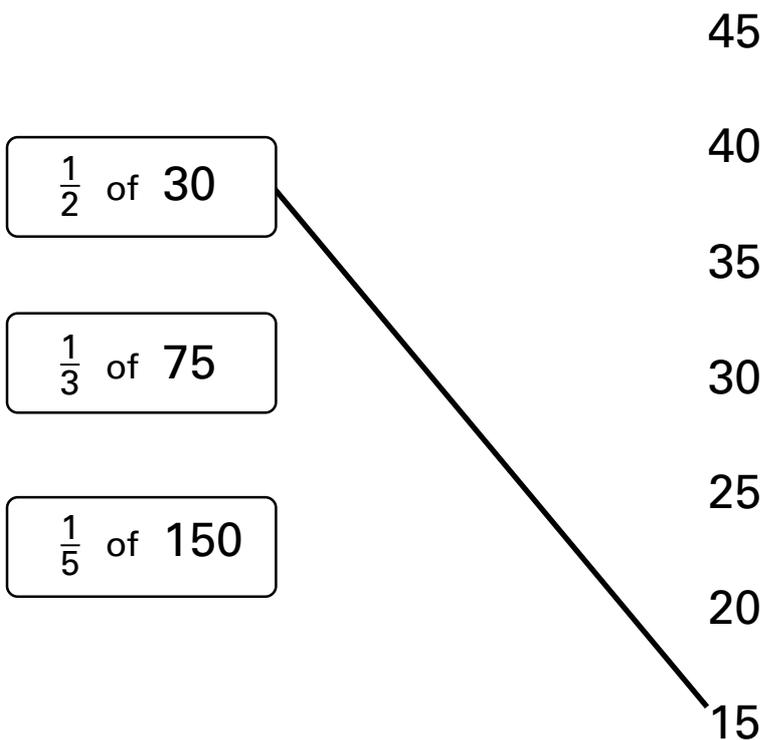


13
2 marks

14

Match each box to the correct number.

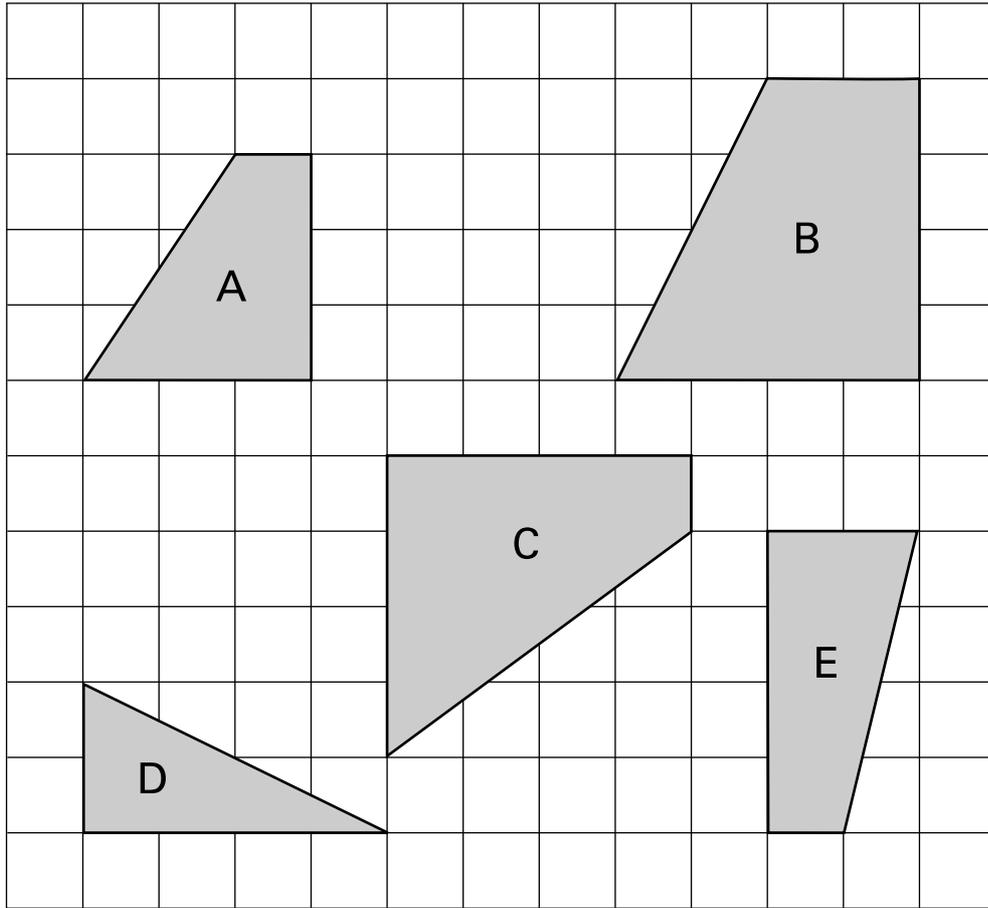
One has been done for you.



14
1 mark

15

Here are five shapes on a square grid.



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



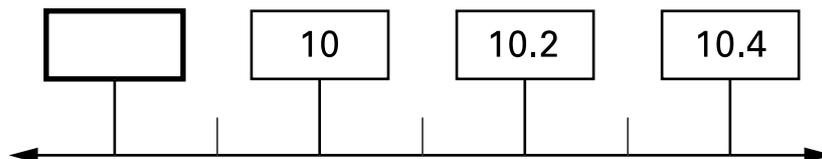
..... and

15

1 mark

16

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



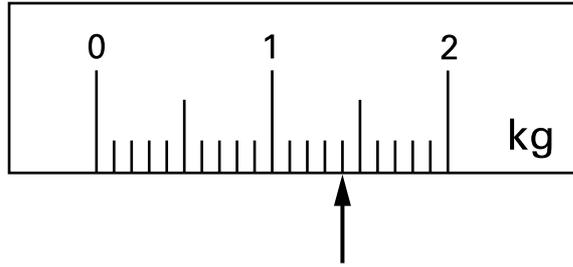
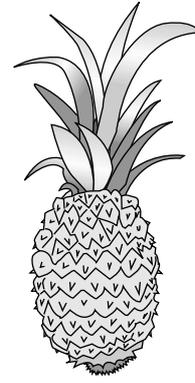
16

1 mark



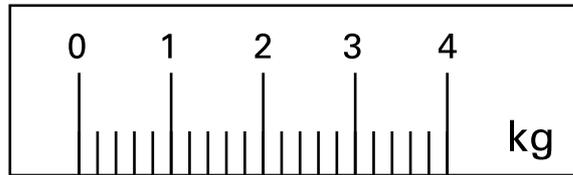
17

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



Here is a **different** scale.

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

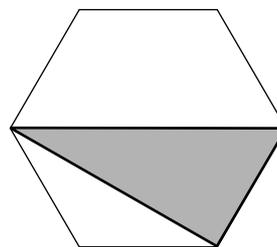
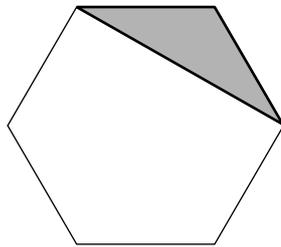


17
1 mark

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

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

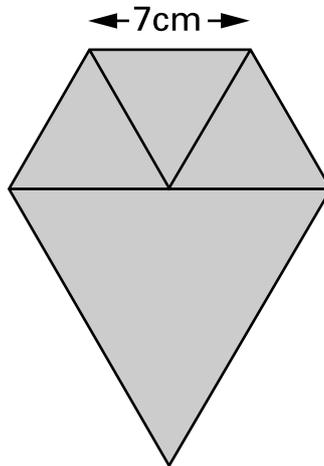
2 marks

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.

 $404.09 \div \boxed{} = 8.5$

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

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

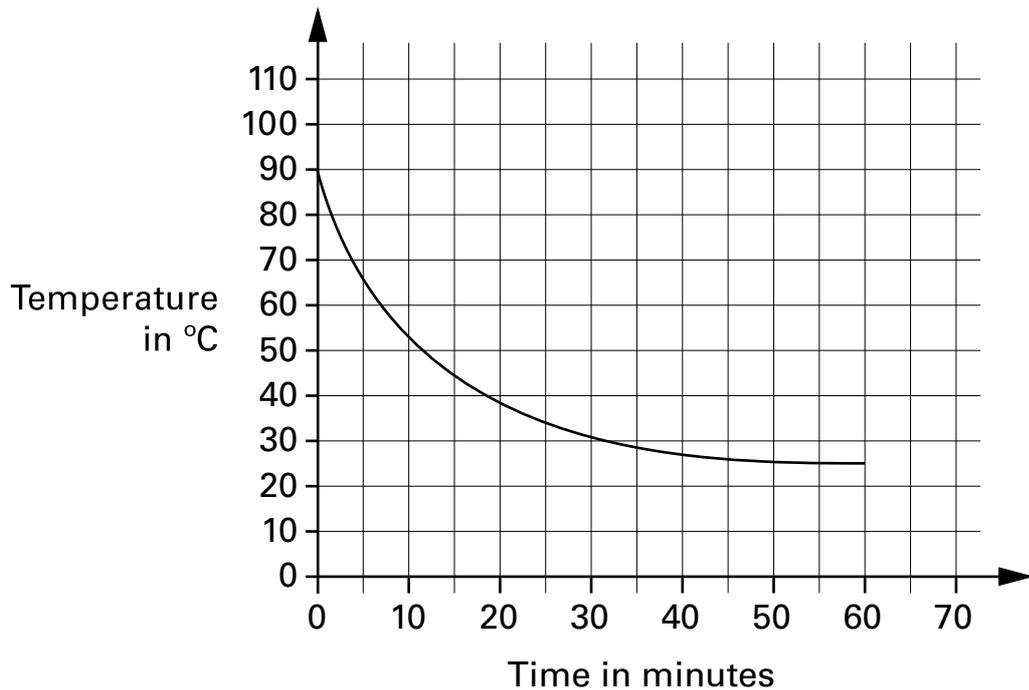
24

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**

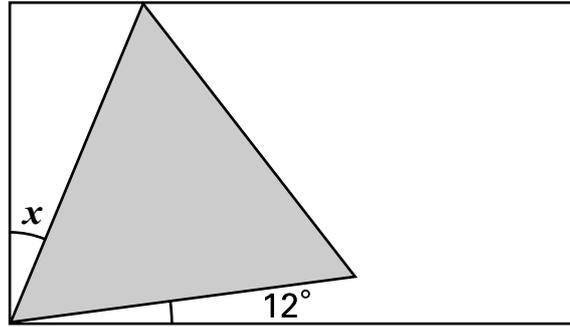
25a

1 mark

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

25b

1 mark

26Here 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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