

MATHS

Multiple-Choice

Familiarisation Test 2

Read the following carefully:

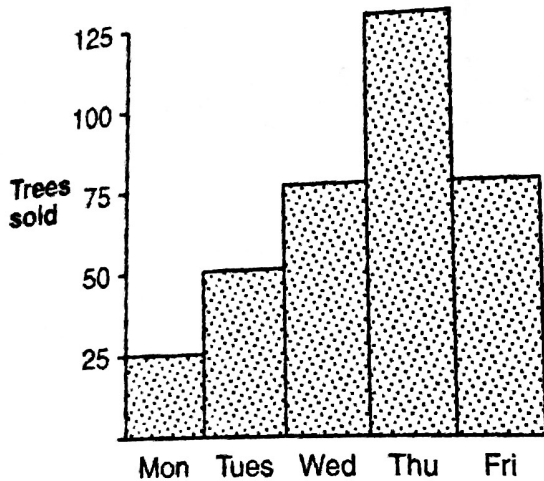
1. Do not turn over this booklet until you are told to do so.
 2. This is a multiple-choice test.
 3. You may do any rough working on a separate sheet of paper.
 4. Answers should be marked on the answer sheet provided, not on the test booklet.
 5. Mark your answer in the column that has the same number as the test question by drawing a firm line clearly through the rectangle next to your answer.
 6. If you make a mistake, rub it out as completely as you can and put in your new answer. You should only mark one answer for each question.
 7. Be sure to keep your place on the answer sheet.
 8. Work as carefully and quickly as you can. If you cannot do a question, do not waste time on it but go on to the next. If you are not sure of an answer, choose the one you think is best.
 9. You will have 50 minutes to do the test.
-

QUESTION 1

Which value does the 9 in 12.097 represent?

QUESTION 2

The graph below shows the number of Christmas trees sold on 5 days at Willow Farm.



How many more trees were sold on Thursday than on Tuesday?

QUESTION 3

In a class of 32 children, three-quarters of them like painting.

How many children do not like painting?

QUESTION 4

Jack collected the following data during a survey of his year group.

	Favourite Message System		
	Telephone	Text	E-mail
Boys	10	6	28
Girls	14	?	28

One hundred pupils completed the survey. How many girls gave text as their favourite way of sending messages

QUESTION 5

Mrs Patel spent £11.60 on 40 busy lizzie plants.

What was the cost of each plant?

QUESTION 6

A rope is 4 m 6 cm long.

It is folded in half and cut into two equal pieces.

How long is each piece?

QUESTION 7

Look at this table showing the performance of the school hockey team.

Year	Won	Lost	Drawn
2004	7	6	4
2005	3	7	2
2006	8	4	5

How many matches in total did the team not win?

QUESTION 8

Which of these words has a vertical line of symmetry?

- DID
- DAB
- HAD
- MUM
- MUD

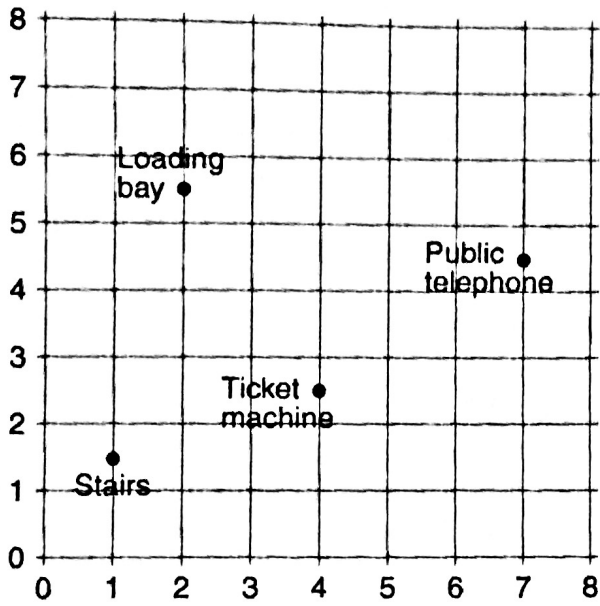
QUESTION 9

Year 6 are all going for a day trip to France. There are 33 children in Year 6 and the trip costs £25 each.

How much money must be collected in total from the children?

QUESTION 10

This grid shows a car park.



Where is the ticket machine?

QUESTION 11

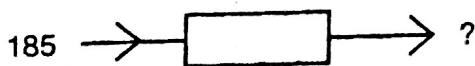
Our school magazine has 56 pages.
 $\frac{2}{7}$ of the pages contain typing errors.
 How many pages contain typing errors?

QUESTION 12

A rectangle has an area of 54 cm^2 .
 If two of the sides are both 6 cm long,
 what is the length of each of the other
 two sides?

QUESTION 13

This machine divides by 5 and then
 multiplies by 3.



Which number comes out?

QUESTION 14

Look at this grid in which there are some
 empty squares.

	15		→ 31
	?	16	→ 31
9		9	→ 31
↓	↓	↓	
31	31	31	

When every square is filled in, each row and
 each column adds up to 31.
 Which number should be in the square with
 the question mark?

QUESTION 15

What is this number to two decimal places?

6.527314

QUESTION 16

A medium-sized teapot holds just enough
 for four cups of tea.
 Which volume is most likely to be true?

- 2 litres
- 0.3 litres
- 300 ml
- 4 litres
- 800 ml

QUESTION 17

In five years' time, Peter's cat will be x years
 old.
 How old was his cat 6 years ago?

QUESTION 18

Sanjay let me finish his box of mints.
He had eaten $\frac{3}{8}$ of them.
If 36 mints were left for me, how many had Sanjay eaten?

QUESTION 19

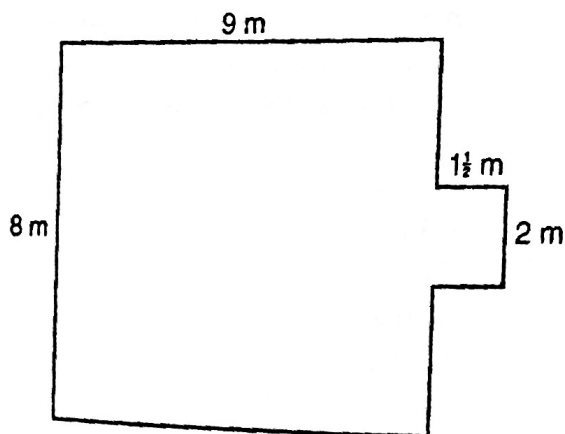
Two coaches are booked for the school trip.
The first coach seats 56 passengers, and the second 43.
8 adults, 41 boys and 38 girls are going on the trip.
How many spare seats will there be?

QUESTION 20

John and his sister Debra held a cake sale at their school to raise money for charity.
They sold 48 large cakes at 10p each and 65 small cakes at 5p each.
How much money did they make at their sale?

QUESTION 21

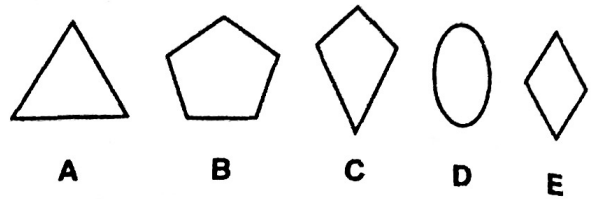
Here is the plan of a room.



How far is it all the way around the edge of this room?

QUESTION 22

Which shape does **not** have rotational symmetry?



QUESTION 23

Which number is exactly divisible by both 2 and 8?

- 18
- 28
- 32
- 42
- 52

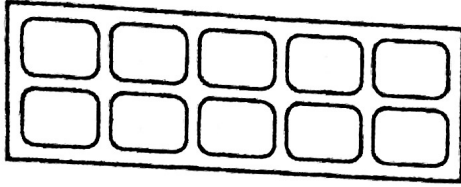
QUESTION 24

The Crystal 5 cinema charges £3.50 entrance for adults and £3 for children.
Popcorn is £1.50 for a large bag and £1.25 for a small bag.
What will be the total cost for Mr and Mrs Jenkins to take their two children to the cinema if each adult has a large bag of popcorn and each child a small bag?

QUESTION 25

You multiply a number by 3.
The answer is doubled then divided by 6.
The result is 5.
What number did you start with?

QUESTION 26



Kim uses six ice cubes in drinks for her friends.
What percentage of the ice cubes are left?

QUESTION 27

The table below shows the number of children present at school in Year 6 during a fortnight.

Day	Week 1					Week 2				
	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri
No. of children present Y6	27	28	30	31	29	27	27	25	26	30

What is the mode?

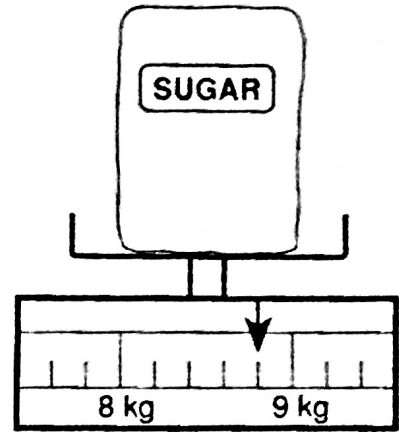
QUESTION 28

Sarah's mum buys her a new school skirt in a sale at half price.
The original cost of the skirt was £9.50.
How much change does Sarah's mum get from her £10 note?

QUESTION 29

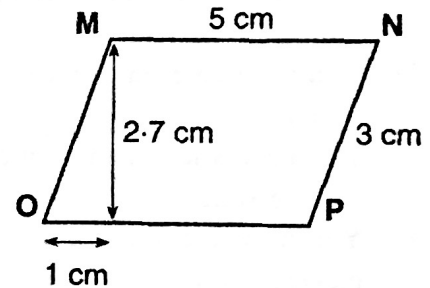
Dr Shah's car is 4 m long.
This is the average length of all five cars at the Surgery.
A parking bay has to be marked out along the roadside.
Allowing an extra 1.5 m per car for driving into the space, roughly how long does the new bay have to be for all the cars to be parked?

QUESTION 30



The arrow shows how much the sack of sugar weighs.
If another 600 g of sugar are added, what will the total weight be?

QUESTION 31



What is the area of the parallelogram MNPO?

QUESTION 32

30 children are going on a school holiday.
Each child takes £ x pocket money for the holiday.
Each child also takes £ y pocket money for the journey.
What is the total amount of pocket money, in pounds, taken by the group?

QUESTION 33

At Sally's school, there are 860 children.
95% like chips.
How many children don't like chips?

QUESTION 34

Some tin cans have lost their labels.
3 contain soup, 4 contain beans, and 1 contains peas.
If you pick a can at random, in which one of the following are **both** statements true?

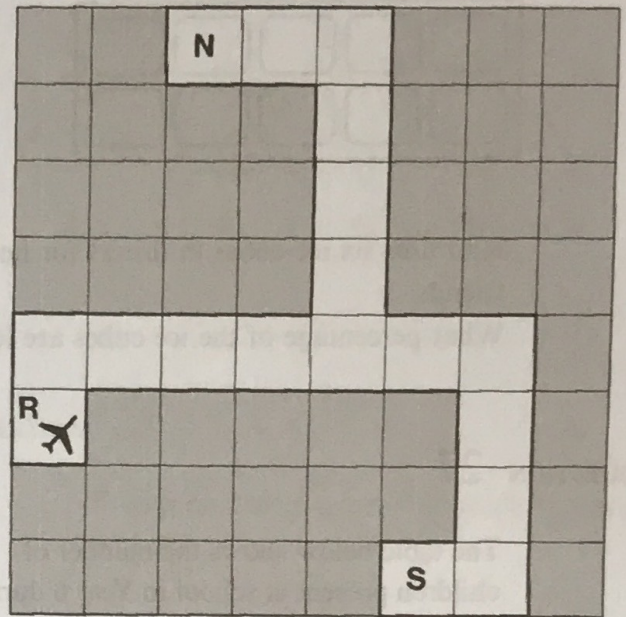
- A You have an even chance of picking beans.
You have a greater than even chance of picking soup.
- B You have an even chance of picking soup.
You have a less than even chance of picking peas.
- C You have a less than even chance of picking peas.
You have an even chance of picking soup.
- D You have an even chance of picking beans.
You have a less than even chance of picking soup.
- E You have a less than even chance of picking soup.
You have a greater than even chance of picking beans.

QUESTION 35

$$3a + 7b - 4c = x$$

If $a = 6$, $b = 5$, $c = 8$, what is x ?

QUESTION 36



At the airport, Ground Control must guide a plane from the end of the runway, point R, to the North terminal, point N.
The plane can only move FORWARD, TURN LEFT 90° or TURN RIGHT 90°.
Which set of instructions will guide the plane from the runway (R) to the North Terminal (N)?

- A FORWARD 1, TURN RIGHT 90°
FORWARD 6, TURN RIGHT 90°
FORWARD 3, TURN RIGHT 90°
FORWARD 1
- B FORWARD 1, TURN RIGHT 90°
FORWARD 4, TURN LEFT 90°
FORWARD 4, TURN LEFT 90°
FORWARD 2
- C FORWARD 1, TURN LEFT 90°
FORWARD 4, TURN LEFT 90°
FORWARD 4, TURN RIGHT 90°
FORWARD 2
- D FORWARD 1, TURN RIGHT 90°
FORWARD 6, TURN LEFT 90°
FORWARD 3, TURN RIGHT 90°
FORWARD 1
- E FORWARD 1, TURN RIGHT 90°
FORWARD 4, TURN RIGHT 90°
FORWARD 4, TURN LEFT 90°
FORWARD 2

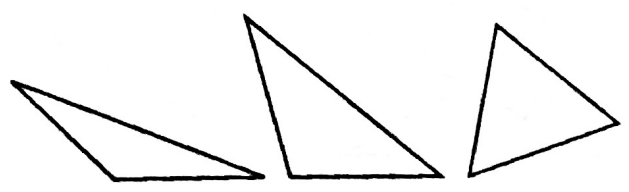
QUESTION 37

$3^5 = ?$

- $3 \times 3 \times 3 \times 3 \times 3$
- $5 \times 5 \times 5$
- 3×5
- 35
- 15

QUESTION 38

Which answer describes these triangles in order from left to right?



- A scalene, isosceles, equilateral
- B isosceles, scalene, equilateral
- C equilateral, scalene, isosceles
- D scalene, equilateral, isosceles
- E equilateral, isosceles, scalene

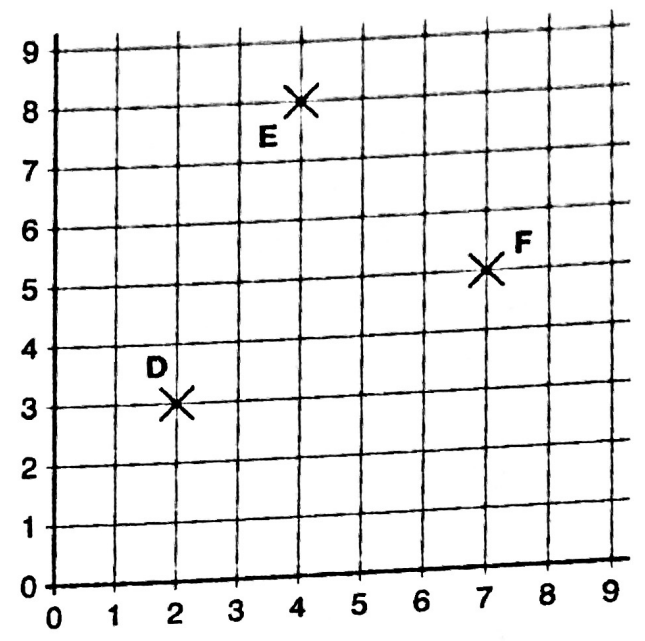
QUESTION 39

This is part of a conversion table for feet to metres and metres to feet.
As an example, 3 feet = 0.91 metres.

	feet to m	m to feet
1	0.31 m	3.28 ft
2	0.61 m	6.56 ft
3	0.91 m	9.84 ft
4	1.22 m	?

Which figure is missing from the table?

QUESTION 40



What are the coordinates of D, E and F?

- A D (3, 2) E (8, 4) F (5, 7)
- B D (2, 3) E (4, 8) F (7, 5)
- C D (2, 3) E (4, 7) F (7, 5)
- D D (3, 2) E (7, 5) F (4, 8)
- E D (3, 2) E (4, 8) F (5, 7)

QUESTION 41

Which one of these gives the answer 30?

- 25% of 80
- $\frac{2}{5}$ of 75
- $\frac{3}{4}$ of 45
- 70% of 40
- 40% of 60

QUESTION 42

Lollipops cost the same as sherbet dips. Sherbet dips cost twice as much as jelly rings. Four of the following cost the same. Which does not cost the same as the rest?

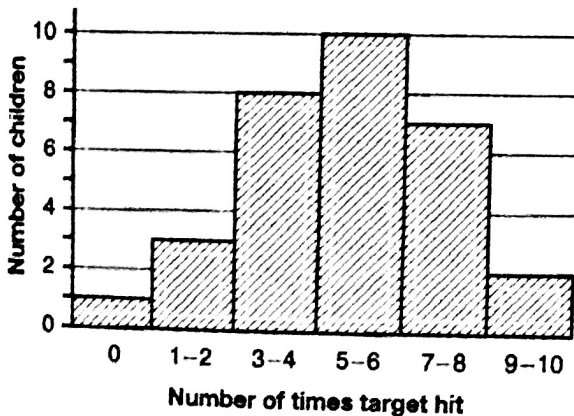
- A 3 sherbet dips, 2 jelly rings, 1 lollipop
- B 2 lollipops, 2 sherbet dips, 2 jelly rings
- C 3 sherbet dips, 2 lollipops
- D 2 lollipops, 4 jelly rings, 2 sherbet dips
- E 1 lollipop, 6 jelly rings, 1 sherbet dip

QUESTION 43

Rajiv draws a quadrilateral with only one pair of equal angles and only one line of reflective symmetry. What is the name of this quadrilateral?

QUESTION 44

This bar chart shows how many times a class of children hit a target with a set of ten beanbags.



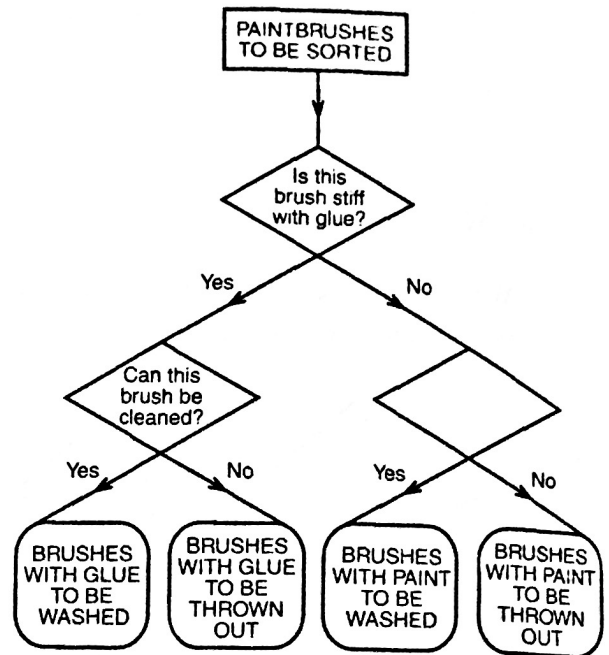
How many children hit the target fewer than 7 times?

QUESTION 45

A map of Holland is drawn to a scale of 1:400,000. What real distance is represented by 1 cm on the map?

QUESTION 46

Leon used this decision tree to sort a pile of old paintbrushes. Each paintbrush had either paint or glue dried on to it.



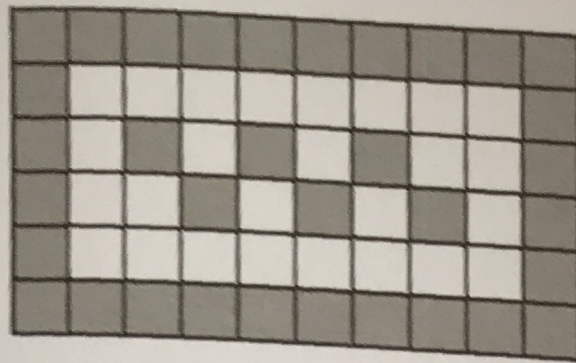
What is missing from the empty shape?

- A BRUSHES TO BE THROWN OUT
- B Is this brush stiff with paint?
- C Should this brush be thrown out?
- D BRUSHES WITH PAINT
- E Can this brush be cleaned?

QUESTION 47

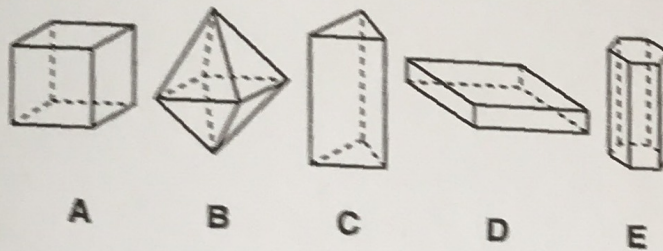
An isosceles triangle has angles X, Y and Z. Angle X measures 55° . Angles X and Y differ in size by 15° . What is the size of angle Z?

QUESTION 48



Each of these grey and white carpet tiles measures $50 \text{ cm} \times 50 \text{ cm}$.
What is the total area covered by the grey carpet tiles, in square metres?

QUESTION 49



Which of the above solids has more faces than vertices?

QUESTION 50

$$(21 \times 55) + 20 = 1175$$

Which of the following is incorrect?

$$1175 - 20 = 21 \times 55$$

$$21 \times (55 + 20) = 1175$$

$$1175 = 20 + (21 \times 55)$$

$$20 = 1175 - (21 \times 55)$$

$$(21 \times 55) + 21 = 1176$$