



MATHS

Multiple-Choice

Familiarisation Test 3

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.
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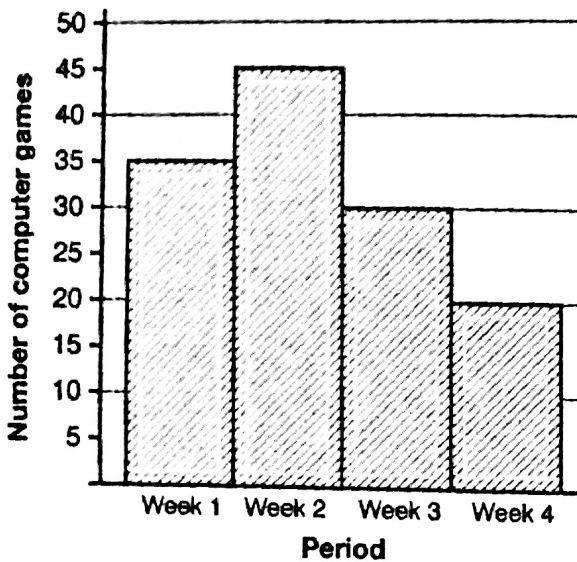
QUESTION 1

12,345

The 2 in this number is worth 2000.
What is the 3 worth?

QUESTION 2

This shows the number of computer games sold by a shop in four weeks.



How many more computer games were sold in Week 1 than in Week 4?

QUESTION 3

Twenty-four thousand seven hundred and six. Which answer shows this written as a number?

- 24,706
- 2476
- 24,760
- 2470.6
- 24,700.6

QUESTION 4

How many fives are there in 870?

QUESTION 5

Which number has the smallest value?

- 1.01
- 0.99
- 0.02
- 1.25
- 0.5

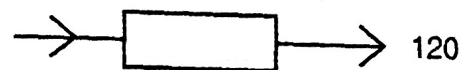
QUESTION 6

Claire packed her rucksack for a day's hike in the country. It contained a flask of hot tea, some sandwiches, two apples, a banana and a bar of chocolate. She also packed some waterproof clothes. How much is the rucksack likely to weigh?

- 3 kg
- 300 g
- 30 kg
- 300 kg
- 3 g

QUESTION 7

This machine trebles and then subtracts 6.



Which number has been put in?

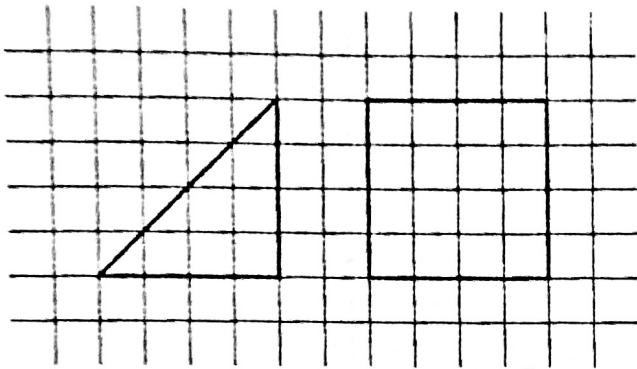
QUESTION 8

In a concert hall, there are 592 seats. 306 tickets are sold in advance. 178 tickets are sold at the door. How many empty chairs are there during the concert?

QUESTION 9

There are 12 eggs in a dozen. How many eggs are there in 4.5 dozen?

QUESTION 10



In this diagram, 1 small square represents 1 cm^2 .

What is the difference in area between this triangle and square?

QUESTION 11

Gemma and Li did a survey on favourite pizza toppings.

Favourite Pizza Toppings	
Key: ○ stands for 6 children D stands for 3 children	
Cheese and tomato	○ ○ ○ ○
Tuna and sweetcorn	○ ○ ○ ○ D
Hot and spicy pepperoni	○ ○
Tomato, mushroom and onion	○ ○ D
Hawaiian pineapple	○ ○ ○ D

How many children liked tuna and sweetcorn best?

QUESTION 12

Today's temperature is 3°C .

Yesterday, it was -4°C .

What is the difference between these two temperatures?

QUESTION 13

Which answer has three numbers that are all cube numbers?

- 8, 16, 32
- 8, 27, 64
- 16, 32, 64
- 9, 27, 64
- 5, 25, 125

QUESTION 14

Which fraction has the largest value?

- $\frac{7}{8}$
- $\frac{3}{4}$
- $\frac{6}{9}$
- $\frac{10}{12}$
- $\frac{3}{5}$

QUESTION 15

Liam halves his dad's age.

He then adds 7.

The result is 26.

How old is his dad?

QUESTION 16

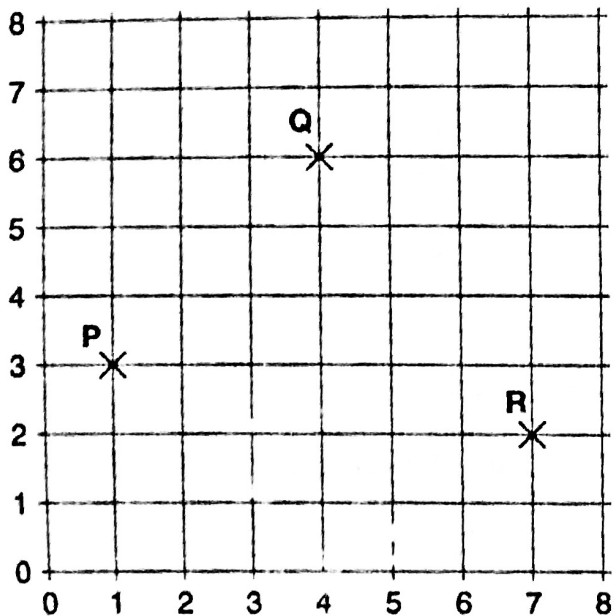
Which of these makes a word when rotated through 180° ?

- BIB
- ON
- TOT
- OF
- BE

QUESTION 17

There are 30 pupils in a class. $\frac{1}{5}$ go home for lunch. $\frac{2}{5}$ buy a school lunch. The rest bring sandwiches. How many pupils bring sandwiches.

QUESTION 18



What are the coordinates of P, Q and R?

- A P (3, 1) Q (6, 4) R (2, 7)
- B P (1, 2) Q (4, 6) R (7, 1)
- C P (1, 3) Q (4, 6) R (7, 2)
- D P (1, 3) Q (7, 2) R (4, 6)
- E P (1, 3) Q (4, 6) R (2, 7)

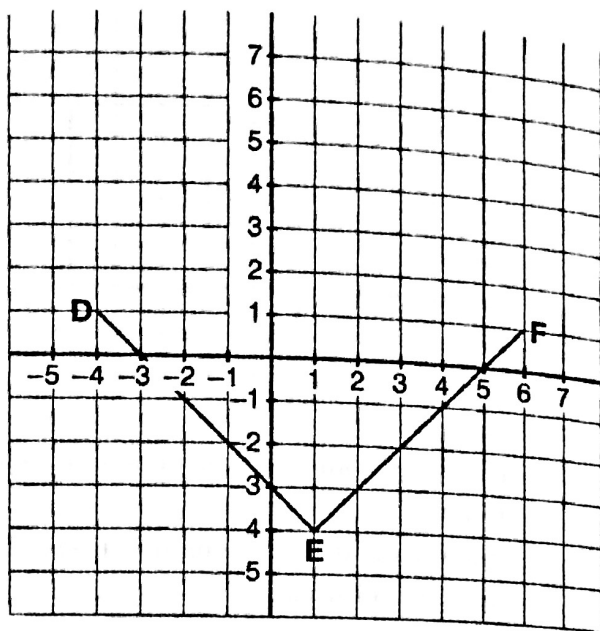
QUESTION 19

Five friends compared how much pocket money they received each week.

Name	Andrew	Gemma	Amarjit	Stuart	Joanne
Amount of pocket money	£1	£1.75	£1.40	90p	£1.50

What is the range?

QUESTION 20

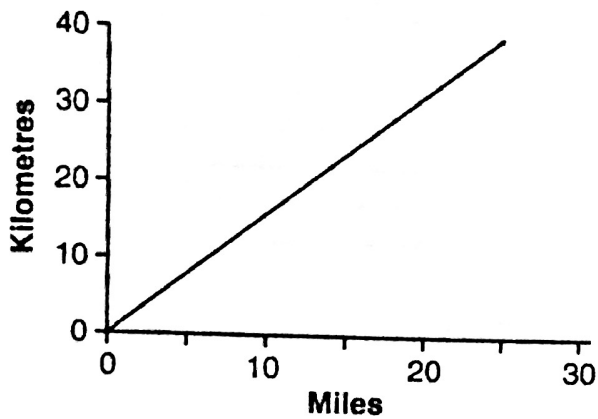


When point G is added, DEFG is a square. What are the coordinates of point G?

QUESTION 21

The Hassan family have 2 pints of milk delivered every day by their milkman. Milk costs 41p for a pint. What is the Hassan family's weekly milk bill?

QUESTION 22



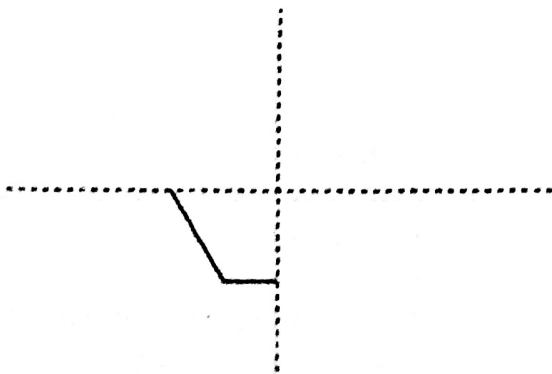
This graph converts kilometres to miles.
How many miles is 400 km?

QUESTION 23

David has keyboard lessons which cost £2.10 each week.
He has three 12-week terms.
What is the total cost of his lessons in a year?

QUESTION 24

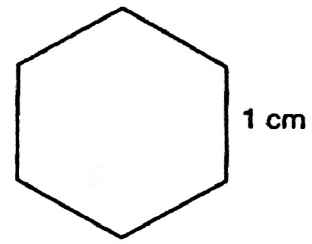
The diagram below shows part of a shape and two of its lines of symmetry.



What is the name of the complete shape?

QUESTION 25

Here is a plan of a dining table.



The drawing has a scale of 1:50.
How far would it be all the way around the edge of the full-size dining table?

QUESTION 26

$$y \text{ is } \frac{1}{2} \text{ of } x$$

Which of the following is incorrect?

$$x = 2y$$

$$y = 2x$$

$$y = \frac{1}{2}$$

$$\frac{y}{y} = 2$$

$$\frac{y}{x} = \frac{1}{2}$$

QUESTION 27

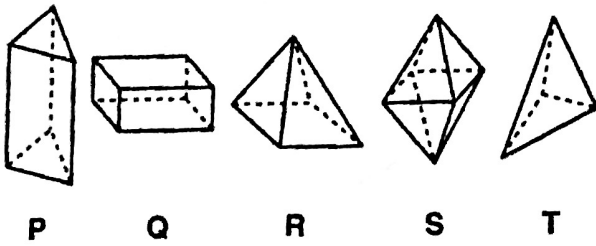
A lucky dip bag contains the following balls:

- 6 red
- 3 blue
- 2 green
- 7 yellow
- 2 white

To win a prize, I have to pick a white ball.
What are the chances that I don't win a prize?

QUESTION 28

Which two solids have the same number of edges?



QUESTION 29

Ravi earns £6.50 from his weekly paper round. He is paid at the end of each week. If he saves all the money, how many weeks must he work before he can buy a mobile phone costing £50?

QUESTION 30



If the above angles were arranged in order of size, which would be in the middle?

QUESTION 31

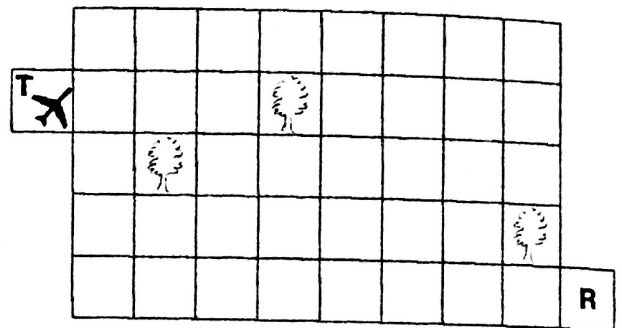
Out of a class of 36 children, 17 have younger brothers and sisters. Approximately what proportion is this?

QUESTION 32

84	96	108
96	108	120
108	120	?

What is the missing number?

QUESTION 33



At the airport, Ground Control must guide a plane from point T to the beginning of the runway, R, ready to take off, avoiding any trees on the way.

The plane can only move FORWARD, TURN LEFT 90° or TURN RIGHT 90°. Which set of instructions will guide the plane to the runway, avoiding any trees?

- A FORWARD 3, RIGHT 90°
FORWARD 2, LEFT 90°
FORWARD 5
- B FORWARD 1, LEFT 90°
FORWARD 2, RIGHT 90°
FORWARD 7
- C FORWARD 3, RIGHT 90°
FORWARD 3, LEFT 90°
FORWARD 6
- D FORWARD 1, RIGHT 90°
FORWARD 2, LEFT 90°
FORWARD 7
- E FORWARD 3, LEFT 90°
FORWARD 3, LEFT 90°
FORWARD 6

QUESTION 34

I plant 216 seedlings.
 $\frac{3}{8}$ are killed by the frost.
 How many seedlings survive?

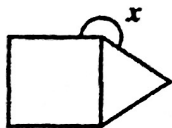
QUESTION 35

Which is the same as the ratio of 32:20?
 5:8
 16:12
 10:4
 8:6
 8:5

QUESTION 36

Jenny's scores in 7 turns on her new computer game were as follows:
 500 1250 2500 2000
 3000 2500 2250
 What is her median score?

QUESTION 37



The above shape is made from a square and an equilateral triangle.
 What is the size of angle x ?

QUESTION 38

An examiner marks 300 exam papers.
 There are 86 questions in each paper.
 How many questions does she mark altogether?

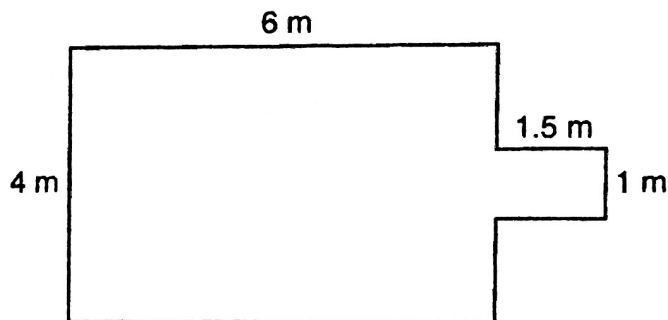
QUESTION 39

What fraction of 2 hours is 45 minutes?

QUESTION 40

Mr Jones is training for the London marathon.
 He runs y kilometres every weekday evening after work and twice as far each day on Saturdays and Sundays.
 How far does he run in one week?

QUESTION 41



This is a plan of a hallway.
 What area of carpet will be needed to completely cover the hallway?

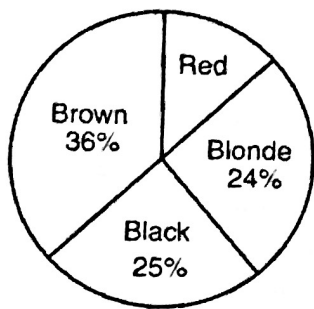
QUESTION 42

If $11x - 3 = 8x + 6$, what does x equal?

QUESTION 43

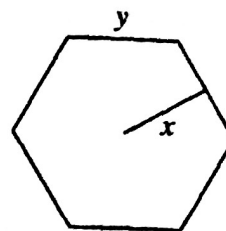
A Greek holiday costs £375 per person.
 There is a £60 reduction for each child.
 How much would it cost for Mr and Mrs Johnson to go on the holiday and take their three children with them?

QUESTION 44



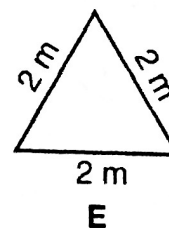
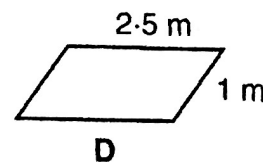
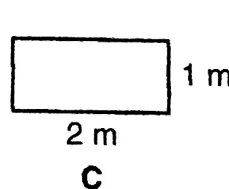
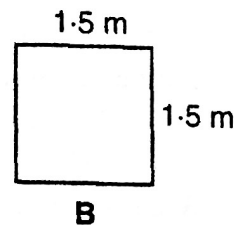
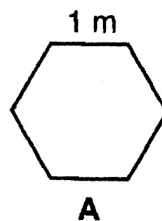
700 people had their hair colour recorded. The results are displayed in this pie chart. How many people had red hair?

QUESTION 48



Which is the formula for the area of this shape?

QUESTION 49

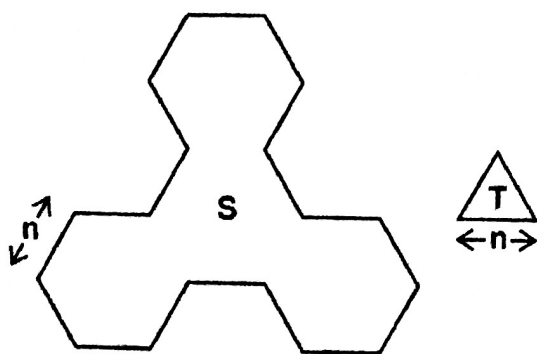


Four shapes have the same perimeter. Which shape has a different perimeter from the others?

QUESTION 45

The game Tom wants has been reduced by 20% in the local toyshop. The original price was £9.50. How much is it now?

QUESTION 46



How many times will shape T fit into shape S?

QUESTION 47

A map of Scotland is drawn to a scale of 1:325,000. How many centimetres on the map would show 65 km?

QUESTION 50

Ben and Emma each start to grow a plant on the same day.

After one week both plants are 5 cm tall.

During the next three weeks Ben's plant grows f centimetres per week and Emma's grows g centimetres per week.

Emma's plant is taller.

When the plants are 4 weeks old how much taller is Emma's plant than Ben's, in centimetres?