

MATHS

Multiple-Choice

Familiarisation Test 4

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

3209

What is this number in words?

- A three thousand two hundred and ninety
- B three thousand two hundred and nine
- C thirty-two thousand and nine
- D three thousand and twenty-nine
- E thirty-two thousand and ninety

QUESTION 2

Which of these words does not have a horizontal line of symmetry?

- BOB
- HOD
- TOT
- KID
- COOK

QUESTION 3

How should the time of 6.30 in the evening be written?

- 16.30
- 20.30
- 17.30
- 06.30
- 18.30

QUESTION 4

Sunita collected the following data during a survey of pupils in her class.

	Favourite outings		
	Ice Rink	Cinema	Swimming Pool
Girls	3	4	
Boys	7	2	11

Thirty-nine pupils took part in the survey. How many girls said the swimming pool was their favourite outing?

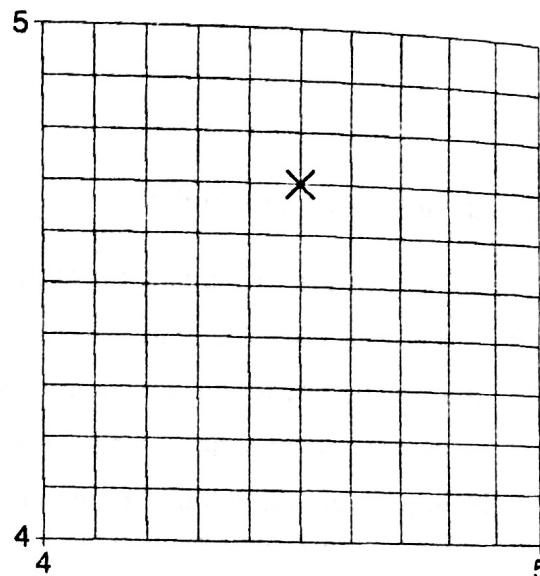
QUESTION 5

Carmel draws a plan of her school using a scale of 1 cm to 5 m. On the plan the playground is 6 cm long. What is the real length of the playground?

QUESTION 6

One display cabinet holds 38 DVDs. How many cabinets will be needed to hold 646 DVDs?

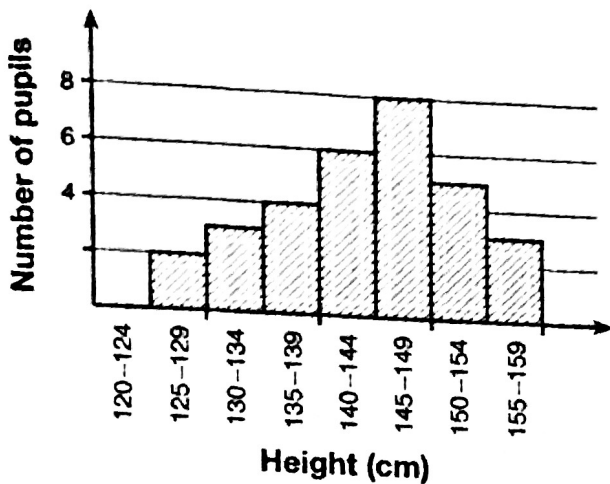
QUESTION 7



What are the coordinates of the cross?

QUESTION 8

This bar chart shows the heights of a class of pupils.



Which statement **must** be true?

- A 2 children are 125 cm tall or less
- B 8 children are at least 140 cm tall, but less than 145 cm tall
- C 8 children are more than 144 cm tall, but less than 150 cm tall
- D No children are taller than 158 cm
- E 4 children are at least 15 cm tall, but less than 160.5 cm tall

QUESTION 9

Which answer is **not** a square number?

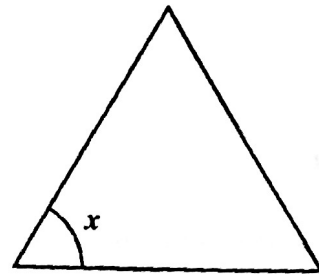
- 16
- 9
- 25
- 12
- 36

QUESTION 10

4	8	12
8	?	16
12	16	20

What is the missing number?

QUESTION 11

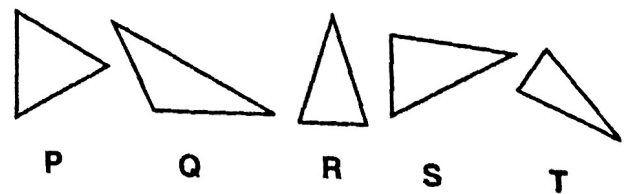


What is the approximate size of angle x inside the triangle?

QUESTION 12

What fraction of 2.400 litres is 400 ml?

QUESTION 13



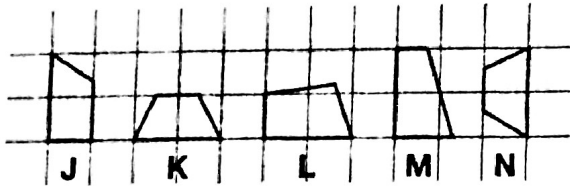
Which triangle has an obtuse angle?

QUESTION 14

525 raffle tickets were sold by 25 pupils in one school.
On average, how many tickets did each pupil sell?

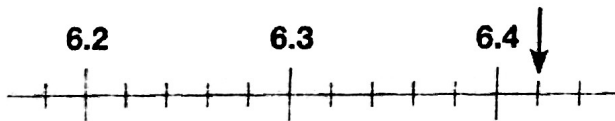
QUESTION 15

How many of the shapes below are trapeziums?



QUESTION 16

Look at this number line.

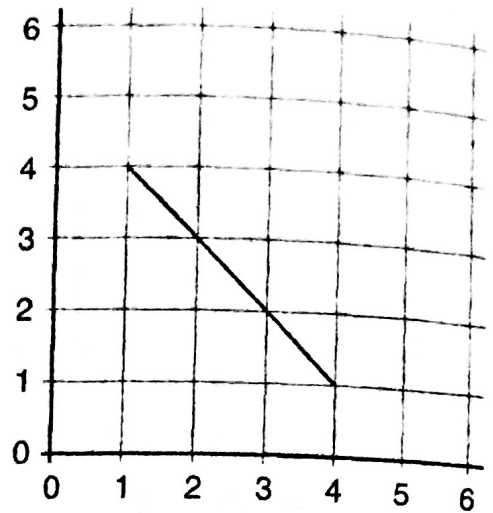


What number does the arrow point to?

QUESTION 17

In the school chess club, there are 22 boys and 33 girls.
What fraction of the club is made up of girls?

QUESTION 18



The end points of five lines are shown below.

Which line is parallel to the line in the diagram?

- (1, 1) and (4, 4)
- (4, 1) and (4, 4)
- (2, 2) and (5, 5)
- (5, 2) and (2, 5)
- (4, 1) and (6, 3)

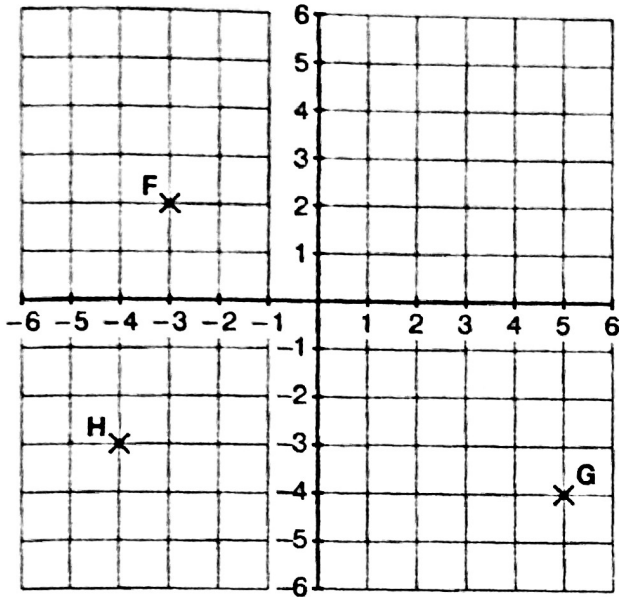
QUESTION 19

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

13		17	→ 45
?		19	→ 45
	8		→ 45
↓	↓	↓	
45	45	45	

When every square is filled in, each row and each column adds up to 45.
Which number should be in the square with the question mark?

QUESTION 20



What are the coordinates of F, G and H?

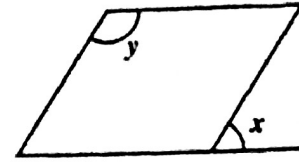
- A F (2, -3) G (-4, 5) H (-3, -4)
- B F (-3, 2) G (-5, 4) H (-4, -3)
- C F (-2, 3) G (5, -4) H (-4, -3)
- D F (-3, 2) G (4, -5) H (-4, 3)
- E F (-3, 2) G (5, -4) H (-4, -3)

QUESTION 21

Lucy enjoys lots of out-of-school activities. On Sunday she does gymnastics which costs £1.65. On Tuesday she goes to Brownies which costs £1. On Wednesday she has a piano lesson which costs £2.10. On Thursday she plays the flute in a music group, which costs £1.50. On Friday she goes to a German class which costs £3.50. What is the total cost of Lucy's activities each week?

QUESTION 22

In the parallelogram below, angle y measures 110° .



What is the size of angle x ?

QUESTION 23

In a survey of 85 people, every fifth person had a pierced ear. How many people had a pierced ear?

- 0.5×85
- $85 \times \frac{1}{5}$
- $5 \div 85$
- $85 - \frac{4}{5}$
- 85×0.25

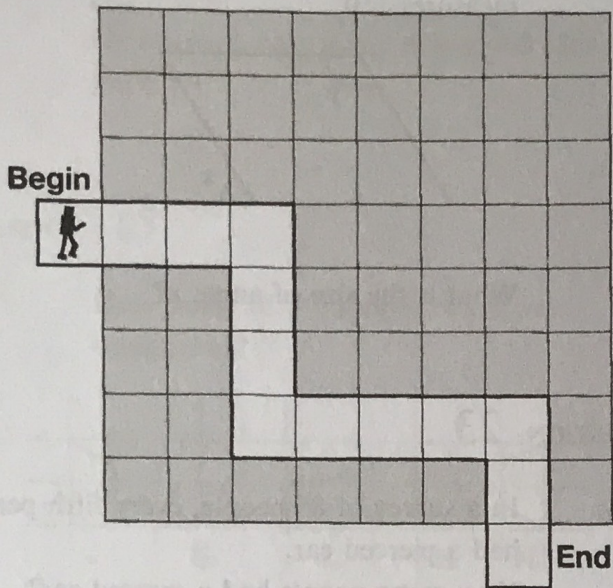
QUESTION 24

Year 5 collected information on how they came to school.

Method	No. of pupils
Walk	27
Car	9
Bus	?
Bicycle	14
Train	12

The mean is 14. How many came by bus?

QUESTION 25



Can you guide the robot along the white squares through this grid?
 It starts on the square marked 'Begin' and finishes on the square marked 'End'.
 You can only programme it to move FORWARD, TURN LEFT 90° or TURN RIGHT 90° .
 Which of the instructions below will guide the robot through the grid?

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

QUESTION 26

Rucksacks are being packed into trunks for a hiking trip.
 Each trunk holds 9 rucksacks.
 How many trunks are needed for 79 rucksacks?

QUESTION 27

The table below shows how long Tony spends on his homework each night.

Day	Monday	Tuesday	Wednesday	Thursday	Friday
Time spent	1 hr 15 min	2 hrs	1 hr	40 min	2 hrs 15 min

What is the range?

QUESTION 28

Jonathan gets £2.50 pocket money each week.
 His younger brother David gets half as much.
 If David saves all of his pocket money for a whole year how much money will he have?

QUESTION 29

Ian is now twice his sister's age.
 In 4 years' time Ian will be 16.
 How old will his sister be then?

QUESTION 30

Which one of these is the smallest?

- 3.6%
- $\frac{1}{25}$
- 0.05
- 3.49%
- $\frac{1}{15}$

QUESTION 31

Leon is going on a school holiday which costs £180.

Each week he takes to school £15 towards the cost.

So far he has paid £75.

How many more weekly payments does he need to make?

QUESTION 32

The ratio of cars to vans in the town centre car park is 14:3.

If there are 15 vans in the car park, how many cars are there?

QUESTION 33

How many of the following shapes have at least one pair of parallel sides?

- regular hexagon
- regular pentagon
- rhombus
- isosceles triangle
- trapezium

QUESTION 34

There are 66 passenger seats on a bus.

The bus left the garage without passengers.

At the first stop, 12 people got on.

At the second stop, 15 people got on.

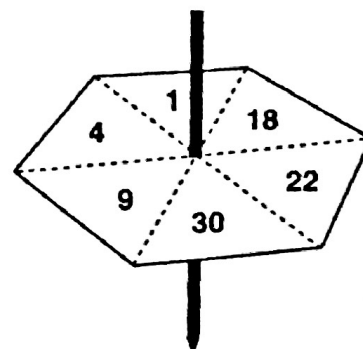
At the third stop, 19 people got on and 4 got off.

At the fourth stop, 23 people got on and 8 got off.

How many empty seats are there now?

QUESTION 35

A spinner is equally likely to land on any of the numbers 1, 4, 9, 18, 22, 30.



What is the probability that the spinner lands on an even number?

QUESTION 36

The perimeter of a rectangle is 18 cm.

What could be the area of the rectangle?

- 18 cm²
- 18 m²
- 24 cm²
- 81 cm²
- 36 cm²

QUESTION 37

A stack of 6 identical green boxes weighs the same as a stack of 4 identical yellow boxes.

Which of the following statements is incorrect?

- A 3 green boxes weigh the same as 2 yellow boxes.
- B 8 yellow boxes weigh the same as 12 green boxes.
- C 6 yellow boxes weigh the same as 9 green boxes.
- D 15 green boxes weigh the same as 10 yellow boxes.
- E 10 green boxes weigh the same as 8 yellow boxes.

QUESTION 38

Which answer is different to the others?

0.25 of 100

25% of 100

$\frac{2}{8}$ of 100

0.4 of 100

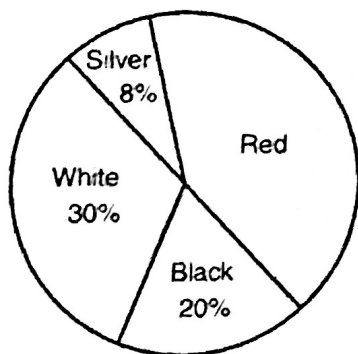
$\frac{1}{4}$ of 100

QUESTION 39

A map of Germany is drawn to a scale of 1:750,000.

What real distance is represented by 1 cm on the map?

QUESTION 40



This pie chart shows the proportions of different colours of cars in a car park. There are 30 black cars in the car park. How many red cars are there?

QUESTION 41

Two sisters eat Weetbisks cereal for breakfast.

Each Weetbisks box contains 24 biscuits. Georgina eats m Weetbisks each morning. Jennifer is less hungry and has only n Weetbisks biscuits each day.

After 4 days there are 4 biscuits left in the Weetbisks box.

Which answer is correct?

$m = 2$ and $n = 3$

$m = 3$ and $n = 2$

$m = 3$ and $n = 1$

$m = 4$ and $n = 2$

$m = 1$ and $n = 4$

QUESTION 42

Large cans of lemonade hold 330 ml.

Small cans hold 150 ml.

On Monday, Kerry drank a large can.

On Tuesday, she drank two small cans, and

on Wednesday, she drank one small can.

Her younger brother, Sam, drank exactly half the amount that Kerry drank in total.

How much did Sam drink?

QUESTION 43

$x + 3y = 2z$

Which of the following is incorrect?

$2x + 6y = 4z$

$3y = 2z - x$

$x + 3y - 2z = 0$

$2z - 3y = x$

$2x = 4z + 6y$

QUESTION 44

St Gregory's School held a Book Fair. Each book cost £2.99. 250 books were bought by the children altogether.

What was the total amount of money spent by the children at the Fair?

QUESTION 45

This is part of a conversion table for pounds to kilograms and kilograms to pounds

As an example, 3 pounds = 1.36 kg.

	pounds to kg	kg to pounds
1	0.45 kg	2.21 lbs
2	0.91 kg	4.41 lbs
3	1.36 kg	?
4	1.81 kg	8.82 lbs

Which figure is missing from the table?

QUESTION 46

Patrick is 4 feet 11 inches tall. Which is closest to his height in metres?

- 1.3 m
- 1.4 m
- 1.5 m
- 1.6 m
- 1.7 m

QUESTION 47

Sam gets x pounds **each month** for his pocket money from his parents. He also gets y pounds **each week** from his paper round. How much money does Sam get in one year, in pounds?

QUESTION 48

Joanne's Mum and Dad run a café. In summer fruit salad is very popular. Every day they use:

- 4 kg apples which cost them 50p per kg.
- 6 kg oranges which cost them 75p per kg.
- 5 kg bananas which cost them 45p per kg.
- 3 kg grapes which cost them £1.20 per kg.
- 2 kg strawberries which cost them 90p per kg.

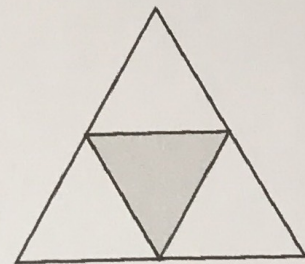
How much is their daily fruit bill?

QUESTION 49

Which answer has the greatest value?

- 20% of 220
- $\frac{1}{2}$ of 220
- $\frac{2}{10}$ of 220
- 102
- 0.2 of 220

QUESTION 50



The area of the shaded triangle is 250 mm^2 . What is the area of the large triangle?