



Devonport
High School
For Boys

11+ Familiarisation

June 2023

Mathematics Test

Time Allowed: 40 minutes

Do not turn the page until you are told to do so

Answers should be marked on the answer sheet using a pencil

Only give one answer to each question

If you become stuck on a question go on to the next and come back if time allows

Use the paper supplied to do any working out necessary

You will have 40 minutes to do the test

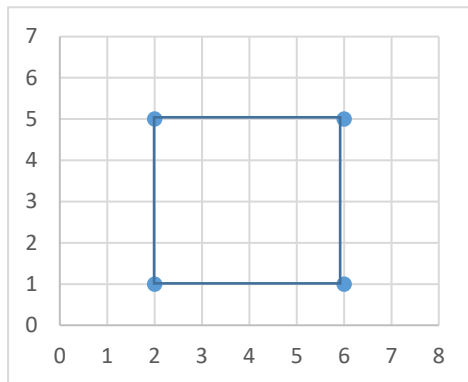
Question 1

A school has 267 pupils, 129 pupils are boys.
How many pupils are girls?

Question 2

What time is the same as 8.20 in the evening?

Question 3



What are the coordinates of the centre of the square?

Question 4

$$\square + (3 \times \square) = 44$$

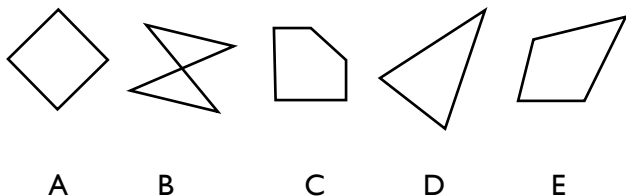
What number does $\square$ stand for?

Question 5

A train has 7 carriages, Each carriage holds 94 passengers. How many seats has the train have?

Question 6

Which shape has exactly two lines of symmetry?

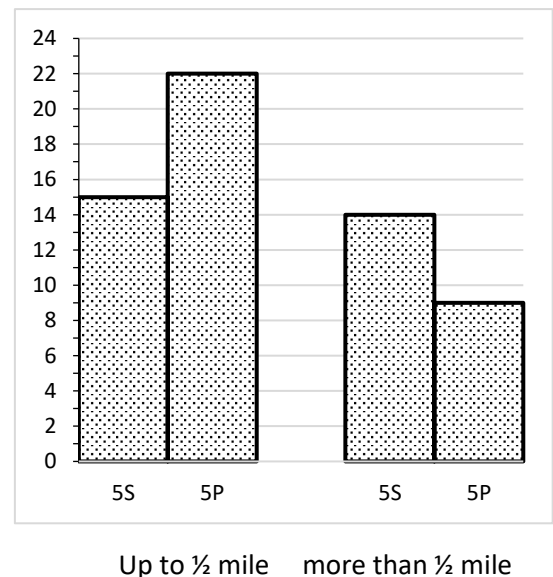


Question 7

One fifth of the pupils in a school wear glasses. What percentage of the pupils wear glasses?

Question 8

The chart below shows the number of children in classes 5S and 5P who live up to $\frac{1}{2}$ mile and more than $\frac{1}{2}$ mile from school.



How many more children in class 5S than 5P live more than $\frac{1}{2}$ mile from school?

Question 9

A number is made of 4 hundreds, 7 hundredths, 2 ones, 2 tens and 3 tenths.

What is the number?

Question 10

A parcel weighs 2.3kg. What is its weight in grams?

Question 11

The UK population is approximately 63,182,000. The population of London is 8.54 million. How many people in the UK live outside London?

Question 12

How many times can 147 be subtracted from 930 before we get to zero?

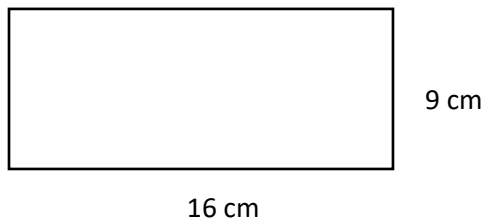
Question 13

24 -4 -32 -60 -88

How large is the step between successive numbers in this sequence?

Question 14

A square has the same area as the rectangle below. What is the length of its side?



Question 15

Which of these is a prime factor of 63?

5 6 7 10 11

Question 16

What is $\frac{3}{4}$ of £3.36?

Question 17

Which of these lengths is longest?

157mm 52cm 0.451m 43cm 0.5m

Question 18

To get the next number in the sequence you multiply by two and subtract one.

3 5 9 17 — —

What is the 6th number in the sequence?

Question 19

Day	Temperature
Monday	-9 °C
Tuesday	-5 °C
Wednesday	4 °C
Thursday	0 °C
Friday	-2 °C

Which day has the median temperature?

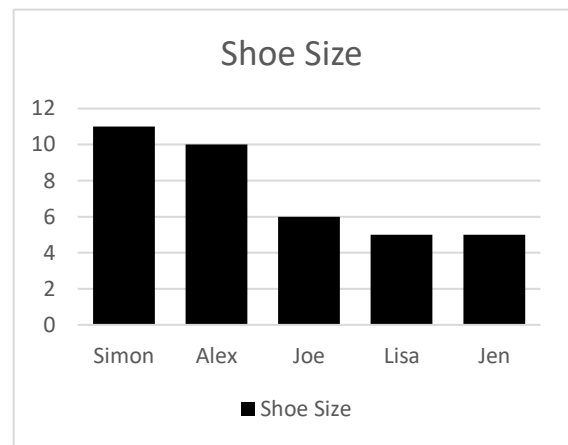
Question 20

A stationery shop sells 6119 pens in 29 days. How many pens per day did they sell?

Question 21

What is the smallest number you can make using the digits 7, 3, 7, 2?

Question 22



What is the range of the shoe sizes?

Question 23

What units would you use to measure the capacity of a cup?

Question 24

If two angles of a triangle are 63° and 42°, what is the size of the third angle?

Question 25

What is $2 \times (4.3 + 1.05)$?

Question 26

To convert miles to kilometres I multiply by 8 and then divide by 5. Using this method how many kilometres is 15 miles?

Question 27

What fraction of a day is 30 minutes?

Question 28

Which of the following is a multiple of 2, 3 and 5?

25 45 60 35 50

Question 29

What is the missing number?
 $6 \times 7 - 13 = 8 \times 3 + ?$

Question 30

How many seconds in a day?

Question 31

In a bag there are 2 red counters, 3 blue counters, 4 green counters and 6 yellow counters.

What is the probability of picking a blue counter?

Question 32

The school day starts at 08:55 and finishes at 15.45. How many minutes long is the school day?

Question 33

The mean of 6 numbers is 7. Five of the numbers are 3, 4, 7, 8, 4. What is the 6th number?

Question 34

What is the 5th prime number?

Question 35

A shop sells a television for £250. They increase the price by 20%.
What is the new price of the television?

Question 36

A four sided shape has four equal straight sides. There are 2 pairs of parallel sides but no right angles.
Which shape is it?

Question 37

A chocolate bar costs £0.35. A pack containing 5 of the bars costs £1.55.
If you buy 5 bars how much money do you save by buying the 5 pack?

Question 38

Red	Blue	Green	Yellow	Orange
5	5	6	3	1

A pie chart is drawn to show children's favourite colour using the table above.
What size angle would represent Blue?

GO STRAIGHT ON

Question 39

A medicine bottle contains 80 pills. Each pill weighs 300mg. The full bottle weighs 160g.
How much does the empty bottle weigh?

Question 40

What angle do the hours of a clock make between each other at 10.30?

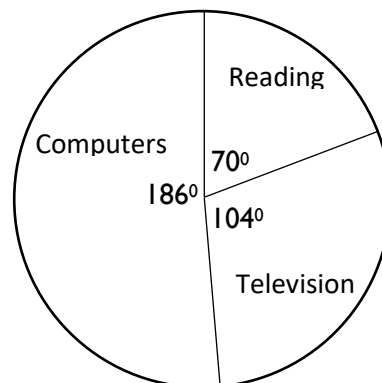
Question 41

Which fraction is $\frac{42}{63}$ equivalent to?

Question 42

In a school 6% of children have red hair. If there are 1100 children at a school, how many have red hair?

Question 43



180 children were surveyed as to their favourite pastime. The results are in the pie chart above. How many children prefer computers?

Question 44

What is the square root of 196?

Question 45

What will be the 50th number in the following sequence

1.23, 1.4, 1.57, 1.74,

END OF TEST