



Devonport
High School
For Boys

11+ Familiarisation
Saturday 9 June 2018

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

Name	
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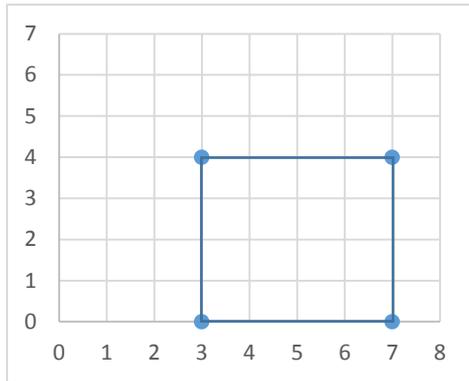
Question 1

A school has 1120 pupils, 652 pupils are boys.
How many pupils are girls?

Question 2

What time is the same as 4.30 in the afternoon?

Question 3



What are the coordinates of the centre of the square?

Question 4

$$\square + (5 \times \square) = 42$$

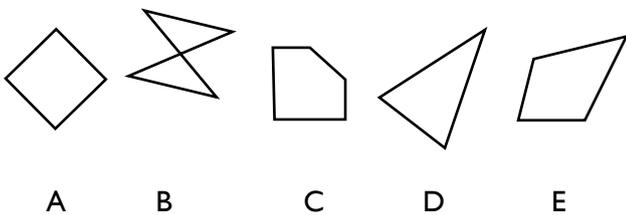
What number does \square stand for?

Question 5

A train has 6 carriages, Each carriage holds 88 passengers. How many seats has the train have?

Question 6

Which shape has exactly two lines of symmetry?

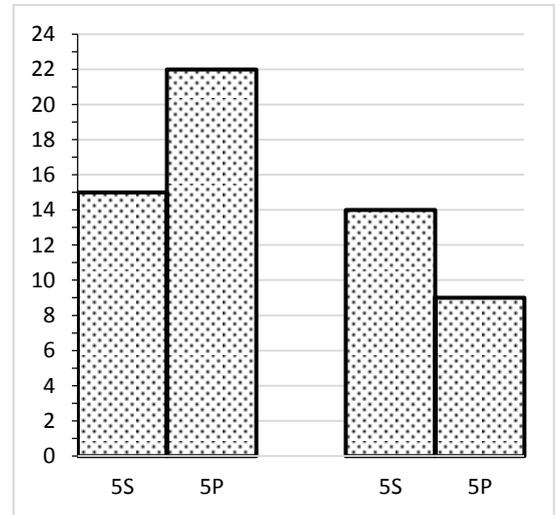


Question 7

Two fifths 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 1/2 mile and more than 1/2 mile from school.



Up to 1/2 mile more than 1/2 mile

How many more children in class 5P than 5S live less than 1/2 mile from school?

Question 9

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

What is the number?

Question 10

A parcel weighs 3.7kg. What is its weight in grams?

Question 11

The UK population is approximately 66,482,000. The population of London is 8.78 million. How many people in the UK live outside London?

Question 12

How many times can 147 be subtracted from 1270 before we get to zero?

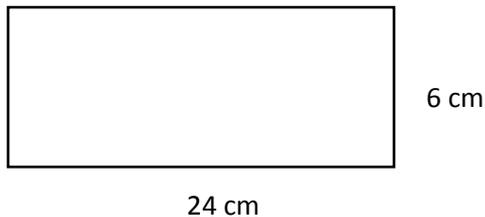
Question 13

20 -4 -28 -52 -76

What 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 99?

- 5 6 7 10 11

Question 16

What is $\frac{3}{4}$ of £4.48?

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 three and add one.

- 3 10 31 94 ___ ___

What is the 6th number in the sequence?

Question 19

Day	Temperature
Monday	-6 °C
Tuesday	-5 °C
Wednesday	4 °C
Thursday	-2 °C
Friday	-1 °C

Which day has the median temperature?

Question 20

A stationery shop sells 6851 pens in 31 days. How many pens per day did they sell?

Question 21

What is the smallest number you can make using the digits 1, 3, 7, 2?

Question 22



What is the range of the shoe sizes?

Question 23

What units would you use to measure the volume of a drinks can?

Question 24

If two angles of a triangle are 36° and 22°, what is the size of the third angle?

Question 25

What is $4 \times (43.4 + 1.02)$?

Question 26

To convert kilometers to miles I multiply by 5 and then divide by 8. Using this method how many miles is 240 kilometers?

Question 27

What fraction of a day is 15 minutes?

Question 28

Which of the following is a multiple of 2, 3 and 7?

- 25 45 60 35 84

Question 29

What is the missing number?
 $4 \times 7 - 11 = 5 \times 2 + ?$

Question 30

How many seconds in an hour?

Question 31

In a bag there are 5 red counters, 2 blue counters, 7 green counters and 1 yellow counter.

What is the probability of picking a green counter?

Question 32

The school day starts at 08:55 and finishes at 15.20. How many minutes long is the school day?

Question 33

The mean of 6 numbers is 9. Five of the numbers are 3, 6, 7, 8, 6. What is the 6th number?

Question 34

What is the 7th prime number?

Question 35

A shop sells a television for £300. They increase the price by 15%.
What is the new price of the television?

Question 36

A four sided shape has no equal straight sides. There is only 1 pair of parallel sides. Which shape is it?

Question 37

A chocolate bar costs £0.45. A pack containing 5 of the bars costs £1.90. If you buy 5 bars how much money do you save by buying the 5 pack?

Question 38

Red	Blue	Green	Yellow	Orange
5	7	8	3	2

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

Question 39

A medicine bottle contains 90 pills. Each pill weighs 250mg. 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 7.30?

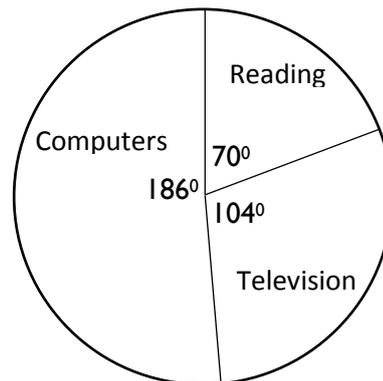
Question 41

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

Question 42

In a school 24% of children have blond hair. If there are 1100 children at a school, how many have blond 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 225?

Question 45

What will be the 50th number in the following sequence

1.23, 1.41, 1.59, 1.77,

