



Devonport
High School
For Boys

11+ Familiarisation

June 2022

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

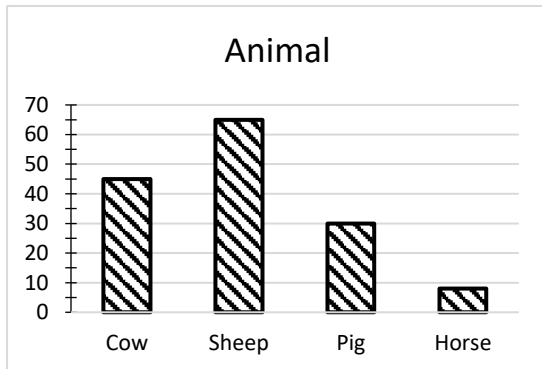
Name	
-------------	--

Question 1

The original cost of a mobile phone is £76.30
The price is reduced by £18.45

What is the new price?

Question 2



The bar chart shows the number of animals on a farm.

How many more sheep are there than pigs?

Question 3

Chocolate bars are packed in boxes of 36.
A shop buys 14 boxes.

How many chocolate bars are in 14 boxes?

Question 4

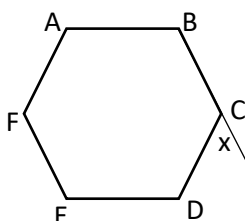
$$\square + (3 \times \square) = 36$$

What number does $\square$ stand for?

Question 5

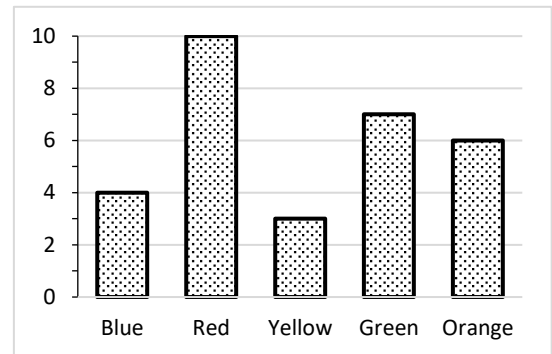
A minibus carries 12 pupils.
How many buses would be needed to take 248 pupils?

Question 6



ABCDEF is a regular hexagon.
What is the size of angle x ?

Question 7



The chart shows the number of pupils choosing their favourite colours.

Which statement is **wrong**?

- A Red received seven more votes than yellow
- B There are ten pupils in the class
- C Four people like blue best
- D More voted for green than orange
- E Nobody has black as their favourite colour

Question 8

The marks in a Maths test were:

25 26 26 22 28 25
27 25 26 27 25 26
28 30 24 25 26 29
25 26 27 25 30 21

What is the mode of these numbers?

Question 9

What does the 5 in the number 3567.23 stand for?

Question 10

I am thinking of a number. One fifth of my number is 8.
What is one tenth of my number?

Question 11

How many times can 143 be subtracted from 855 before we get to zero?

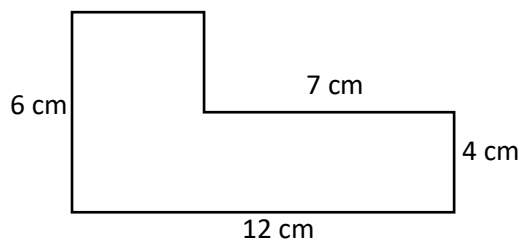
Question 12

14 -13 -40 -67 -94

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

Question 13

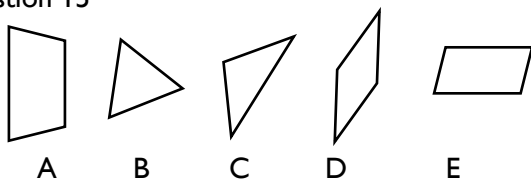
What is the area of this shape?



Question 14

There is 6g of sugar in every 10g of jam.
How much sugar is in 500g of jam?

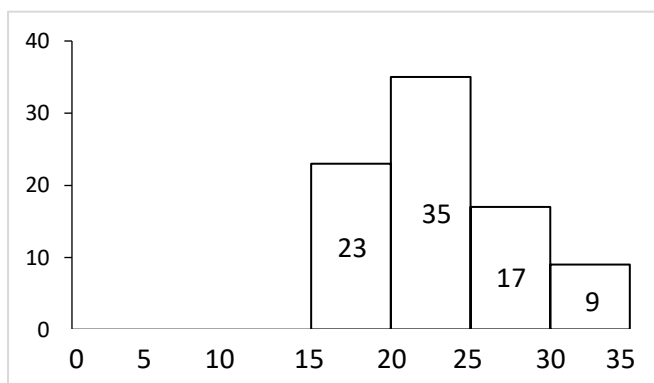
Question 15



Which shape has exactly 2 lines of reflective symmetry and also rotational symmetry?

Question 16

The ages of the members of a club are given on the histogram below.



How many members were aged 25 or older?

Question 17

Which of these lengths is longest?

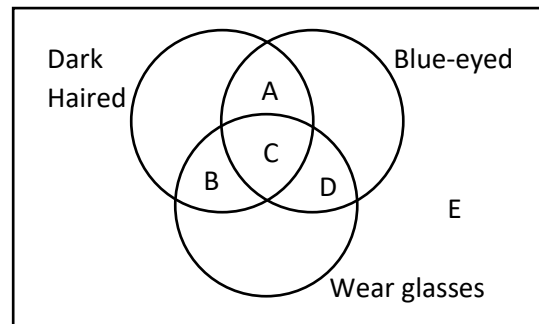
42cm 0.4m 147mm 0.351m 33cm

Question 18

What is the 5th term in this sequence?

951 828 705 ____ ____

Question 19



John is dark haired, has brown eyes and wears glasses. In which section would you put his name?

Question 20

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

Question 21

If two angles of a triangle add up to 137°, what is the size of the third angle?

Question 22

What is $4 \times (6.2 + 1.05)$?

Question 23

I buy 11 chocolate bars costing 38p each. How much change would I get from £10?

Question 24

What fraction of an hour is 12 minutes?

Question 25

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

21 42 40 36 44

Question 26

What is the missing number?
 $8 \times 7 - 11 = 6 \times 4 + ?$

Question 27

What is the largest number you can make using the digits 7, 8, 9 and 9?

Question 28

How many seconds in 24 hours?

Question 29

In a bag there are 84 counters. $\frac{5}{7}$ of the counters are blue. How many blue counters are there?

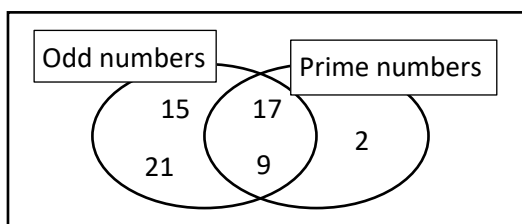
Question 30

The sun rose at 05:43 and set at 18:05. How many minutes were there between sunrise and sunset?

Question 31

The mean shoe size for six boys was 5. Five of the boys had sizes 3, 7, 6, 2, 3. What was the shoe size of the sixth boy?

Question 32



Which number is in the wrong place?

Question 33

A car costing £45,000 decreases in value by 15% in one year. What is its new value?

Question 34

5 gallons = 22.82 litres

Which is nearest to 1 gallon?

4.528 4.448 4.645 4.565 4.504

Question 35

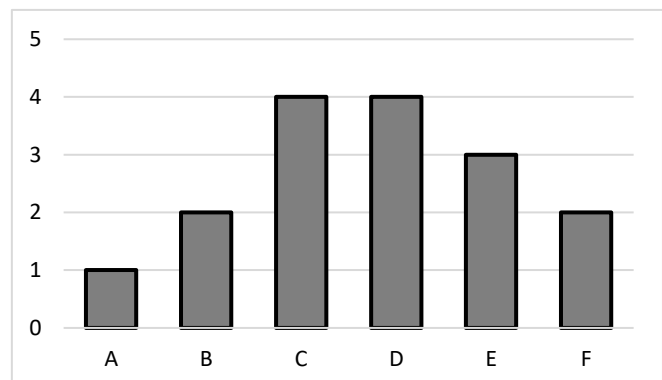
For a train journey t tickets cost $c = 8 + 12t$. How many tickets can I get for £100?

Question 36

48 pencils cost £11.04. What is the cost of each pencil?

Question 37

16 cards each have a letter on them. The chart below shows how many with each letter on them.



I pick a card with a D on it and don't put it back.

If I pick another card, what is the probability it will have a C on it?

Question 38

Through what angles does the hour hand of a clock rotate between 8am and 9:30am?

Question 39

Which fraction is $\frac{28}{35}$ equivalent to?

Question 40

8% of children wear glasses. If there are 1150 children at a school, how many wear glasses?

Question 41

A full sweet jar weighs 165.5g. The jar contains 90 sweets. Each sweet weighs 450mg. How much does the empty jar weigh?

Question 42

The centre pages of a book are numbered 22 and 23. How many pages are in the book?

Question 43

What is the 50th number in this sequence?

1.15 2.05 2.95 3.85 _____