



Devonport
High School
For Boys

11+ Familiarisation

Saturday 10 June 2017

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

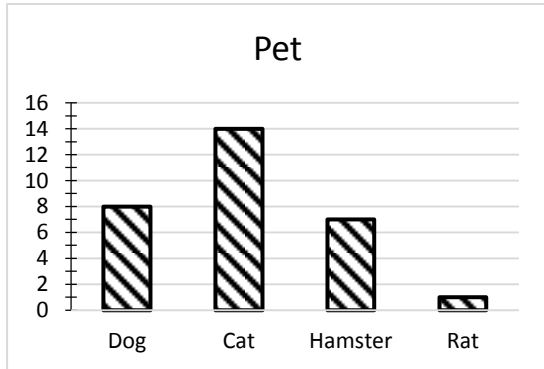
Name	
-------------	--

Question 1

The original cost of a television is £156.20
The price is reduced by £15.65

What is the new price?

Question 2



The bar chart shows which pets children have.

How many more have cats than hamsters?

Question 3

Chocolate bars are packed in boxes of 24.
A shop buys 16 boxes.

How many chocolate bars are in 16 boxes?

Question 4

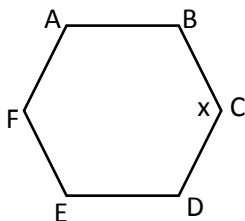
$$\square + (2 \times \square) = 27$$

What number does \square stand for?

Question 5

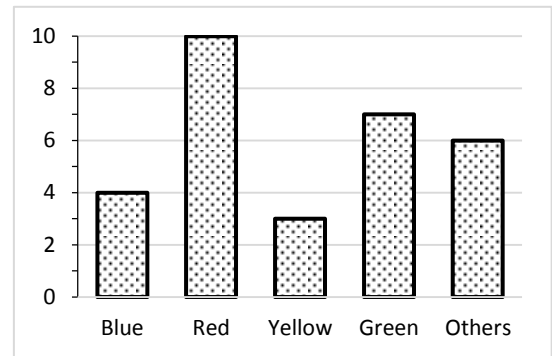
A minibus carries 14 pupils.
How many buses would be needed to take 300 pupils?

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 five more votes than yellow
- B There are thirty pupils in the class
- C Four people like blue best
- D More voted for green than orange
- E One tenth like yellow best

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 6 in the number 3567.23 stand for?

Question 10

I am thinking of a number. One quarter of my number is 5.
What is one tenth of my number?

Question 11

How many times can 137 be subtracted from 1024 before we get to zero?

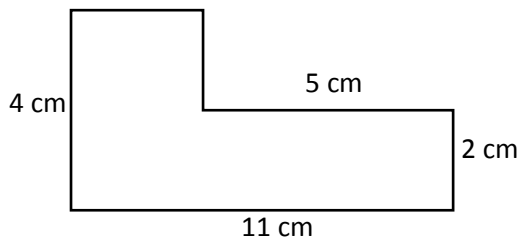
Question 12

-14 -33 -52 -71

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

Question 13

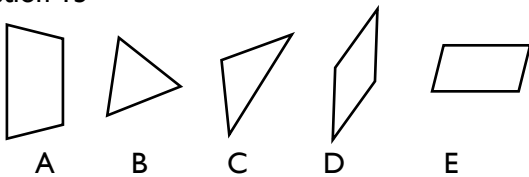
What is the area of this shape?



Question 14

There is 5.5g of sugar in every 10g of jam.
How much sugar is in 600g of jam?

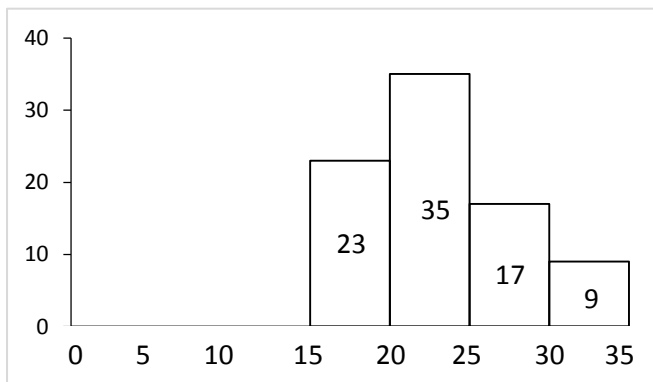
Question 15



Which shape has no lines of reflective symmetry?

Question 16

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



How many members were aged 25 or younger?

Question 17

Which of these lengths is longest?

42cm 0.4m 147mm 0.351m 33cm

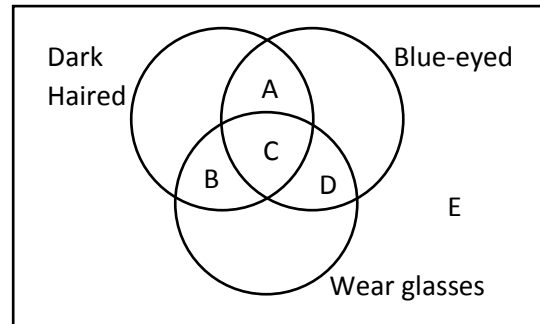
Question 18

What is the 5th term in this sequence?

991 864 737 _____

GO STRAIGHT ON

Question 19



John is dark haired, has blue eyes and does not wear 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 49°, what is the size of the third angle?

Question 22

What is $8 \times (4.1 + 1.07)$?

Question 23

I buy 11 chocolate bars costing 27p each. How much change would I get from £5?

Question 24

What fraction of an hour is 5 minutes?

Question 25

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

21 84 40 36 44

Question 26

What is the missing number?
 $8 \times 6 - 9 = 6 \times 5 + ?$

Question 27

What is the largest number you can make using the digits 7, 8, 9 and 0?

GO STRAIGHT ON TO THE NEXT PAGE

Question 28

How many seconds in 12 hours?

Question 29

In a bag there are 63 counters. $\frac{3}{7}$ of the counters are blue. How many blue counters are there?

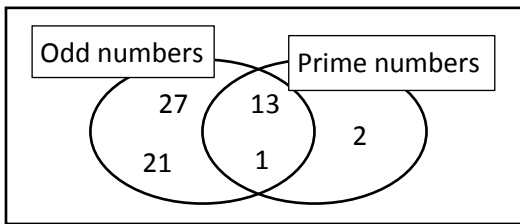
Question 30

The sun rose at 05:34 and set at 21:15. 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 4, 5, 6, 6, 3. What was the shoe size of the sixth boy?

Question 32



Which number is in the wrong place?

Question 33

A car costing £50,000 decreases in value by 35% 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

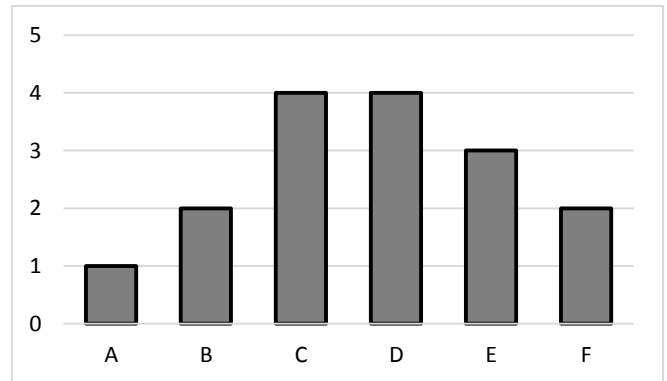
For a train journey t tickets cost $c = 6 + 12t$. How many tickets can I get for £100?

Question 36

36 pencils cost £7.92. 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 an E on it and don't put it back.

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

Question 38

Through what angles does the hour hand of a clock rotate between 6am and 11:30am?

Question 39

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

Question 40

6% of children wear glasses. If there are 1450 children at a school, how many wear glasses?

Question 41

A full sweet jar weighs 180.5g. The jar contains 120 sweets. Each sweet weighs 450mg. How much does the empty jar weigh?

Question 42

The centre pages of a book are numbered 34 and 35. How many pages are in the book?

Question 43

What is the 50th number in this sequence?

1.15 2.1 3.05 4.0 _____

