

Numbers – GCSE Mathematics**1. No.1**

Work out $12^2 \div \left(\frac{1}{3} \times \sqrt{36} \right)$

[3 marks]

Answer _____

2. No.4

The attendance for a rugby match is 8400 people to the nearest 100

(a) Write down the minimum possible attendance.

[1 mark]

Answer _____

(b) Write down the maximum possible attendance.

[1 mark]

Answer _____

3. No.5

A school year has 78 students.

28 wear glasses.

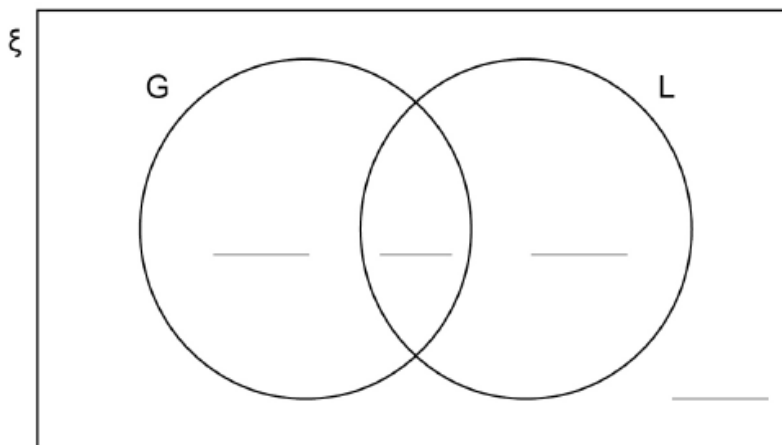
$\frac{1}{4}$ of the students who wear glasses are left-handed.

30% of the students who do **not** wear glasses are left-handed.

(a) ξ = students in the school year

G = wears glasses

L = left-handed



Complete the Venn diagram.

[3 marks]

(b) A left-handed student is chosen at random.

Work out the probability that the student wears glasses.

[1 mark]

Answer _____

4. No.15

(a) Between which two consecutive integers does the square root of 210 lie?

[1 mark]

Answer _____ and _____

(b) Here are two calculations, A and B.

A $1.92^7 + 6.9^3$

B $5 \times \sqrt[3]{1\,000\,350}$
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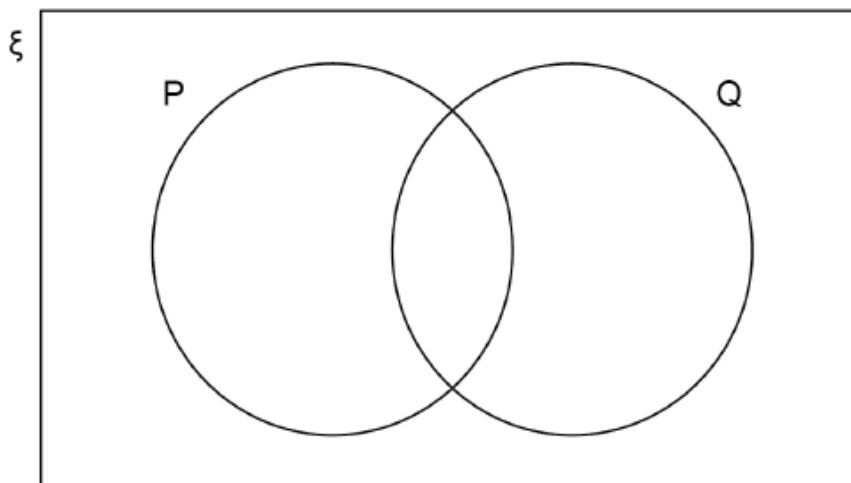
Use approximations to show that answer to A < answer to B

[3 marks]

5. No.9

On the Venn diagram, shade the section represented by $P \cap Q$

[1 mark]



6. No.11

A map has a scale of 1 : 20 000

Two churches are 15 cm apart on the map.

Work out the actual distance between them.

Give your answer in kilometres.

[3 marks]

Answer _____ km

7. **No.15**

Concrete from a truck is poured at 10.9 kg **per second** for 30 minutes.

$$1000 \text{ kg} = 1 \text{ tonne}$$

Is more than 20 tonnes of concrete poured?

Tick a box.

Yes

☐

No

☐

You **must** show your working.

[4 marks]

8. No.11

Write a number in each box to make the calculations correct.

[2 marks]

$$\boxed{10} \div \boxed{-2} \times \boxed{} = \boxed{5}$$

$$\boxed{\frac{1}{3}} \times \boxed{} \times \boxed{6} = \boxed{8\pi}$$

9. No.22

Fatima is choosing a 4-digit code.

Each digit is a whole number from 0 to 9

She decides

all her digits will be odd numbers

no digits will be repeated.

How many different codes can she make?

[2 marks]

Answer _____