

GCSE QUESTIONS WITH CLUES

Q1. NON-CALCULATOR

Write 0.8 as a percentage.

$$0.8 \\ = \frac{8}{10} \\ = \frac{\quad}{100}$$

..... %

(Total for question = 1 mark)

Q2. NON-CALCULATOR

Write 0.9 as a percentage.

$$0.9 \\ = \frac{9}{10} \\ = \frac{\quad}{100}$$

..... %

(Total for question is 1 mark)

Q3. NON-CALCULATOR

Write 0.6 as a percentage.

$$0.6 \\ = \frac{6}{10} \\ = \frac{\quad}{100}$$

..... %

(Total for question = 1 mark)

Q4. NON-CALCULATOR

Write 0.73 as a percentage.

$$0.73 \\ = \frac{\quad}{100}$$

..... %

(Total for question = 1 mark)

Q5. NON-CALCULATOR

Write 0.23 as a percentage.

$$0.23 \\ = \frac{\quad}{100}$$

..... %

(Total for question = 1 mark)

Q6. NON-CALCULATOR

Write 15% as a decimal.

$$15\% \\ = \frac{\quad}{100}$$

..... %

(Total for question = 1 mark)

Q7. NON-CALCULATOR

Write 19% as a fraction.

$$19\% \\ = \frac{\quad}{100}$$

..... %

(Total for question = 1 mark)

Q8. NON-CALCULATOR

Write 3% as a fraction.

$$3\% \\ = \frac{\quad}{100}$$

..... %

(Total for question = 1 mark)

Q9. NON-CALCULATOR

Write $\frac{3}{5}$ as a percentage.

$$\frac{3}{5} = \frac{3}{5} = \frac{60}{100}$$

..... %
(Total for question = 1 mark)

Q10. NON-CALCULATOR

Write $\frac{4}{5}$ as a percentage.

$$\frac{4}{5} = \frac{4}{5} = \frac{80}{100}$$

..... %
(Total for question = 1 mark)

Q11. NON-CALCULATOR

Write $\frac{7}{10}$ as a percentage.

$$\frac{7}{10} = \frac{7}{10} = \frac{70}{100}$$

..... %
(Total for question = 1 mark)

Q12. NON-CALCULATOR

Write $\frac{7}{20}$ as a percentage.

$$\frac{7}{20} = \frac{7}{20} = \frac{35}{100}$$

..... %
(Total for question = 1 mark)

Q13. NON-CALCULATOR

Amelia, Hayden and Sophie did a test. The total for the test was 75 marks.

Amelia got 56% of the 75 marks.

Hayden got $\frac{8}{15}$ of the 75 marks..

Sophie got 43 out of 75

Who got the highest mark?
You must show all your working.

Amelia
56% of 75

$$\begin{array}{r} 56 \\ \times 75 \\ \hline \end{array}$$

↓ ÷ 100

Hayden

$$\begin{array}{l} \frac{8}{15} \text{ of } 75 \\ = \frac{8}{15} \times 75 \\ = \end{array}$$

Sophie

(Total for question = 3 marks)

Q14. NON-CALCULATOR

Here is part of an advert for a driving school.

8 out of 10 of the people we teach pass the driving test first time

Is $\frac{43}{56} > \frac{8}{10}$???

Ali talked to 56 people who had been taught to drive by the driving school. 43 of these people passed the driving test first time.

Does this support what is said in the advert? You must show how you get your answer.

$\frac{8}{10} \times 5.6$
 10×5.6

(Total for question = 3 marks)

Q15. NON-CALCULATOR

There are 500 passengers on a train. $\frac{7}{20}$ of the passengers are men. 40% of the passengers are women.

The rest of the passengers are children.

Work out the number of children on the train.

Men:
 $\frac{7}{20}$ of 500
 $= \frac{7}{20} \times 500$
 $=$

Women:
40% of 500
 $= \frac{40}{100} \times 500$
 $=$

Children:
 $500 - \text{Men} - \text{women}$

(Total for question is 3 marks)

Q16. NON-CALCULATOR

$\frac{3}{8}$ of the people at a football match are men.

27% of the people at the match are women. The rest of the people at the match are children.

Work out what percentage of the people at the match are children.

Men:
 $\frac{3}{8} \times 125$
 8×125
 $= \frac{\quad}{1000}$
 $= \quad \%$

Women:

Children:
 $100\% - \text{men} - \text{women}$

..... %

(Total for question = 3 marks)

Q17. NON-CALCULATOR

Four biased coins, A, B, C and D are thrown. The probability that each coin will land on Heads is shown:

Coin	Probability	
A	0.33	33 %
B	0.033	3.3 %
C	$\frac{1}{3}$	33.3 %
D	30%	30 %

(a) (i) Which coin is least likely to land on Heads?

.....
(1)

(ii) Which coin is most likely to land on Heads?

.....
(1)

Julie says,

"The probability that coin C will land on Heads is the same as the probability that coin C will land on Tails."

(b) Is she correct? Give a reason for your answer.

Does $\frac{1}{3} + \frac{1}{3} = 1$?

.....
.....
(1)

(c) Coin B is going to be thrown 4000 times. Work out an estimate for the number of times coin B will land on Heads.

Number of heads = $P(\text{heads}) \times$ Number of trials
=

..... (2)

(Total for question = 5 marks)

Q18. CALCULATOR ALLOWED ←

Here are four numbers.

0.43

$\frac{3}{7}$

43.8%

$\frac{7}{16}$

Write these numbers in order of size.
Start with the smallest number.

Handwritten work showing conversions:

$$0.43 = 3 \div 7$$

$$43.8\% = 7 \div 16$$

Write back in original form. →

.....
(Total for question = 2 marks)