

8300

GCSE MATHEMATICS

Foundation and Higher tier – Questions by Topic

Number

Ordering fractions, decimals and percentages

v1.0

Name _____

Materials

For this paper you must have:

- Mathematical instruments

Information

- The marks for questions are shown in brackets

Advice

- In all calculations, show clearly how you work out your answer

Questions 1 to 12 are **foundation** tier only

For questions 1 to 8 you must **NOT** use a calculator.



Q1.

- (a) Put these in order starting with the smallest.

33.3 $\frac{1}{3}$ -0.3 3.03

(2)

- (b) Jo thinks the difference between -0.3 and 33.3 is 33.
Is she correct?

Tick a box.

☐

Yes

☐

No

Show clearly how you decide.

(2)

(Total 4 marks)

Q2.

Write these values in order, starting with the smallest.

$\frac{1}{10}$ 0.2 11%

You **must** show your working.

(Total 3 marks)

Q3.

- (a) Write 80% as a decimal.

(1)

- (b) Write 0.7 as a fraction.

(1)

- (c) Write $\frac{3}{4}$ as a decimal.

(1)

- (d) Write 80%, 0.7 and $\frac{3}{4}$ in order with the smallest first.

(1)

(Total 4 marks)

Q4.

(a) Write 3.574 to 1 decimal place.

(1)

(b) Put these decimals in order, starting with the smallest.

0.5 0.62 0.325

(1)

(c) Circle the **two** values that are equivalent to 0.8

8% $\frac{4}{5}$ 80% $\frac{8}{100}$ $\frac{1}{8}$

(2)

(Total 4 marks)

Q5.

Which is bigger, 0.38 or $\frac{3}{8}$?
You **must** show your working.

(Total 3 marks)

Q6.

Put these values in order of size, starting with the smallest.

80%

0.7

$\frac{3}{4}$

(Total 2 marks)

Q7.

Which of $\frac{2}{5}$ or $\frac{5}{8}$ is closer in value to $\frac{1}{2}$?
You **must** show your working.

(Total 3 marks)

Q8.

Put these in order starting with the smallest value.

$\frac{13}{4}$

$3\frac{1}{2}$

3.15

$\sqrt{9}$

You **must** show your working.

(Total 3 marks)

For questions 9 to 12 you may use a calculator.



Q9.

- (a) Circle the percentage that is greater than $\frac{3}{4}$ and less than $\frac{4}{5}$
- 75% 78% 80% 82%

(1)

- (b) Circle the fraction that is greater than 0.3 and less than 0.4
- $\frac{1}{4}$ $\frac{1}{3}$ $\frac{3}{10}$ $\frac{1}{2}$

(1)

(Total 2 marks)

Q10.

Complete each statement using **one** of these symbols.

< = >

2.54	_____	2.508
0.25	_____	$\frac{1}{4}$
2	_____	$\frac{4}{5}$
		$\frac{2}{2}$

(Total 3 marks)

Q11.

- Circle the decimal that is greater than $\frac{1}{5}$ and less than $\frac{1}{4}$
- 0.152 0.200 0.215 0.251

(Total 1 mark)

Q12.

Put these probabilities in order, starting with the least likely.

44% $\frac{1}{4}$ 0.404 $\frac{4}{10}$

(Total 2 marks)

Question 13 is **higher** tier only



For question 13 you must **NOT** use a calculator.

Q13.

- (a) Write down a number with value greater than 2.33 and less than $2.\dot{3}$

(1)

- (b) Write down a fraction with value between $\frac{1}{5}$ and $\frac{1}{4}$

(1)

(Total 2 marks)