

8300

GCSE MATHEMATICS

Foundation and Higher tier – Questions by Topic

Number (fractions/decimals/percentages)

One markers

v1.0

Name _____

Materials

For this paper you must have:

- Mathematical instruments

Information

- The marks for questions are shown in brackets

Advice

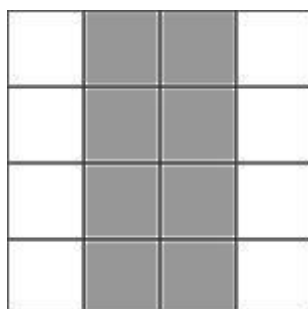
- In all calculations, show clearly how you work out your answer

For questions 1 to 20 you must **NOT** use a calculator.



Q1.

Here is a centimetre grid.



What **percentage** of the grid is shaded?

(Total 1 mark)

Q2.

Circle the decimal which has the same value as $\frac{3}{5}$

0.06

0.35

0.6

3.5

(Total 1 mark)

Q3.

Work out $\frac{1}{4} + 0.5$

Circle your answer.

0.30

0.6

0.75

0.9

(Total 1 mark)

Q4.

Circle the calculation which works out half of 12

$12 \div 0.5$

$2 \div 12$

$12 \times \frac{1}{2}$

$12 \div 50 \times 100$

(Total 1 mark)

Q5.

Circle the percentage that is closest in value to $\frac{1}{3}$

30%

33%

33.3%

33.4%

(Total 1 mark)

Q6.

Write 0.19 as a fraction.

(Total 1 mark)

Q7.

What is $\frac{1}{20}$ as a decimal?

Circle your answer.

0.2

0.05

0.02

0.005

(Total 1 mark)

Q8.

$0.203 = \frac{1}{5} + x$

Circle the value of x .

$\frac{1}{300}$

$\frac{1}{3000}$

$\frac{3}{100}$

$\frac{3}{1000}$

(Total 1 mark)

Q9.

Circle the calculation that increases 240 by 7.5%

240×1.0705

240×1.705

240×1.075

240×1.75

(Total 1 mark)

Q10.

$x \neq 0.4$

Circle the possible value of x .

$\frac{4}{10}$

$\frac{20}{50}$

$\frac{26}{70}$

$\frac{120}{300}$

(Total 1 mark)

Q11.

Work out $0.4\dot{7} + 0.312$

Circle your answer.

0.782

0.789

$0.789\dot{7}$

$0.7\dot{8}\dot{9}$

(Total 1 mark)

Q12.

Circle the fraction that is equivalent to 4.75

$\frac{15}{4}$

$\frac{19}{4}$

$\frac{21}{4}$

$\frac{23}{4}$

(Total 1 mark)

Q13.

Circle the fraction that is equivalent to 4.625

$\frac{39}{8}$

$\frac{37}{8}$

$\frac{185}{4}$

$\frac{17}{4}$

(Total 1 mark)

Q14.

Circle the fraction that is equivalent to $0.\dot{1}$

$\frac{1}{9}$

$\frac{1}{99}$

$\frac{1}{10}$

$\frac{11}{100}$

(Total 1 mark)

Q15.

Work out $0.704\dot{8} - 0.001$

Circle your answer.

$0.703\dot{8}$

$0.703\dot{8}$

$0.703\dot{8}\dot{3}$

$0.703\dot{8}\dot{4}$

(Total 1 mark)

Q16.

$\frac{1}{6}$, $\frac{1}{7}$, $\frac{1}{8}$ and $\frac{1}{9}$ are four fractions.

How many of these fractions convert to a recurring decimal?

Circle your answer.

0

1

2

3

4

(Total 1 mark)

Q17.

Circle the calculation that increases 400 by 7%

400×0.07

400×0.7

400×1.07

400×1.7

(Total 1 mark)

Q18.

Circle any fractions that are equivalent to $0.\dot{3}\dot{6}$

$$\frac{36}{100}$$

$$\frac{36}{99}$$

$$\frac{4}{11}$$

$$\frac{9}{25}$$

(Total 1 mark)

Q19.

Circle the calculation that increases 50 by 200%

$$50 \times 1.2$$

$$50 \times 2$$

$$50 \times 2.2$$

$$50 \times 3$$

(Total 1 mark)

Q20.

In each box, write a decimal **less** than 1 to make a correct calculation.

$\times$

$=$

0.06

(Total 1 mark)

For the rest of the questions, you may use a calculator.



Q21.

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)

Q22.

Circle the decimal that has the same value as $\frac{4}{5}$

0.04

0.4

0.45

0.8

(Total 1 mark)

Q23.

Circle the decimal that is greater than $\frac{3}{10}$ and less than $\frac{2}{5}$

0.32

0.035

0.4

0.24

(Total 1 mark)

Q24.

Circle the fraction equal to 0.1%

$$\frac{1}{10}$$

$$\frac{1}{100}$$

$$\frac{1}{1000}$$

$$\frac{1}{10000}$$

(Total 1 mark)

Q25.

What is $\frac{3}{2}$ as a decimal?

Circle your answer.

1.05

1.1

1.5

3.2

(Total 1 mark)

Q26.

Circle the fraction equal to 0.12

$\frac{1}{12}$

$\frac{3}{25}$

$\frac{1}{8}$

$\frac{6}{5}$

(Total 1 mark)

Q27.

Convert $\frac{7}{16}$ to a decimal.

(Total 1 mark)

Q28.

Circle the expression that can be written as

$y + y$

y^2

$2y$

$2 + y$

$y \times y$

(Total 1 mark)

Q29.

Circle the fraction which is equal to 0.25

$\frac{1}{40}$

$\frac{2}{5}$

$\frac{3}{12}$

$\frac{4}{100}$

(Total 1 mark)

Q30.

Circle the value of 0.15 as a fraction.

$\frac{1}{5}$

$\frac{1}{6}$

$\frac{3}{20}$

$\frac{3}{50}$

(Total 1 mark)

Q31.

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

(Total 1 mark)

Q32.

Write down the value of $\frac{10}{5}$

(Total 1 mark)

Q33.

Write 0.27 as a fraction.

(Total 1 mark)

Q34.

Work out $\frac{9}{4}$ as a decimal.

(Total 1 mark)

Q35.

Write $\frac{2}{5}$ as a decimal.

(Total 1 mark)

Q36.

Work out $\frac{1}{4}$ of 780

(Total 1 mark)

Q37.

Write down an improper fraction equivalent to 1.375

(Total 1 mark)

Q38.

Circle the decimal that is closest in value to $\frac{11}{20}$
0.56 0.6 0.525 0.5

(Total 1 mark)

Q39.

Circle the decimal that is closest in value to $\frac{39}{800}$
0.04 0.048 0.049 0.05

(Total 1 mark)

Q40.

Circle the fraction that is equivalent to 3.875
 $\frac{15}{4}$ $\frac{29}{8}$ $\frac{31}{8}$ $\frac{15}{8}$

(Total 1 mark)

Q41.

Circle the fraction equivalent to 2.375
 $\frac{23}{75}$ $\frac{9}{4}$ $\frac{19}{8}$ $\frac{75}{23}$

(Total 1 mark)

Q42.

Circle the multiplier that reduces a quantity by 12.5%
0.125 0.875 12.5 87.5

(Total 1 mark)

Q43.

Write down a fraction equivalent to 1.875

(Total 1 mark)