

Fractions and Decimals

GCSE Maths · Practice Questions

20 questions · 62 marks total

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Section A · Foundation

Questions 1–3 are the most straightforward; they get harder as you go on. Question 10 is the most challenging.

1 [1 mark]

Write $\frac{18}{24}$ in its simplest form.

.....

2 [2 marks]

Work out $\frac{2}{5} + \frac{1}{3}$

.....

3 [2 marks]

Work out $\frac{3}{4} \times \frac{2}{9}$

Give your answer in its simplest form.

.....

4 [2 marks]

Write 0.6 as a fraction in its simplest form.

.....

5 [3 marks]

Work out $2\frac{1}{2} + 1\frac{3}{4}$

Give your answer as a mixed number.

.....

6

[3 marks]

Work out $\frac{5}{8} \div \frac{3}{4}$

Give your answer in its simplest form.

.....

7

[3 marks]

(a) Work out $\frac{3}{5}$ of 45

(b) Work out $\frac{2}{7}$ of 91

.....

8

[3 marks]

Write these four numbers in order, starting with the smallest.

0.7 $\frac{2}{3}$ 68% 0.71

.....

9

[4 marks]

A jug contains $\frac{3}{4}$ of a litre of juice.

Ali pours out $\frac{2}{5}$ of the juice.

How many litres of juice are left in the jug?

.....

10

[4 marks]

A recipe uses $1\frac{1}{3}$ cups of flour for one batch of biscuits.

Kwame makes $4\frac{1}{2}$ batches.

How many cups of flour does he use?

.....

Section B · Higher

Higher-tier style. Again, questions 1–3 are the gentlest and question 10 is the hardest.

1

[2 marks]

Write the recurring decimal $0.363636\dots$ as a fraction in its simplest form.

.....

2

[2 marks]

Work out $1\frac{2}{3} \div 2\frac{1}{2}$

.....

3

[3 marks]

Prove that the recurring decimal $0.4555\dots$ (only the 5 repeats) is equal to $\frac{41}{90}$

.....

4

[3 marks]

Work out the value of $(\frac{2}{3})^{-2}$

.....

5

[4 marks]

In a school, $\frac{3}{5}$ of the students are girls.

$\frac{2}{9}$ of the girls play hockey.

(a) What fraction of all the students are girls who play hockey?

(b) The school has 450 students. How many girls play hockey?

6

[4 marks]

Write as a single fraction in its simplest form

$$\frac{2}{x+1} + \frac{3}{x-2}$$

7

[4 marks]

Work out $(2\frac{1}{4} - 1\frac{5}{6}) \div \frac{5}{6}$

8

[4 marks]

Mia spends $\frac{2}{5}$ of her money on a coat.

She then spends $\frac{1}{3}$ of what is left on a pair of shoes.

Mia now has £36 left.

How much money did she start with?

9

[4 marks]

Simplify fully

$$\frac{x^2 - 4}{x^2 + 5x + 6} \times \frac{x + 3}{x - 2}$$

10

[5 marks]

A rectangular garden measures $2\frac{3}{4}$ m by $1\frac{1}{3}$ m.

- (a) Work out the area of the garden. Give your answer as a mixed number.
- (b) Fencing costs £12 per metre. Work out the cost of fencing all the way round.
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