# Name: _____

# GCSE (1 - 9)

# Fractions, Decimals and Percentages

## Solutions:

These questions are compiled from *released* Pearson Edexcel GCSE maths exam papers
They contain exam questions from up until the ***Summer 2023*** exam series
More recent exam papers do exist but are withheld for mock exams
As new exam papers are released these worksheets will gradually be updated
The ***most current*** version of these worksheets will always be available at: kennethstafford.co.uk

| Question | Paper where the question appeared | Question | Paper where the question appeared |
|---|---|---|---|
| 1 | Edexcel, GCSE, Autumn 2021, Paper 1F, Q1 | 22 | Edexcel, GCSE, Autumn 2018, Paper 1F, Q11 |
| 2 | Edexcel, GCSE, Autumn 2021, Paper 1F, Q3 | 23 | Edexcel, GCSE, Autumn 2018, Paper 2F, Q5 |
| 3 | Edexcel, GCSE, Autumn 2021, Paper 2F, Q1 | 24 | Edexcel, GCSE, Autumn 2018, Paper 2F, Q6 |
| 4 | Edexcel, GCSE, Autumn 2021, Paper 2F, Q3 | 25 | Edexcel, GCSE, Autumn 2018, Paper 3F, Q2 |
| 5 | Edexcel, GCSE, Autumn 2021, Paper 2F, Q15 | 26 | Edexcel, GCSE, Summer 2018, Paper 1F, Q2 |
| 6 | Edexcel, GCSE, Autumn 2021, Paper 3F, Q1 | 27 | Edexcel, GCSE, Summer 2018, Paper 1F, Q3 |
| 7 | Edexcel, GCSE, Autumn 2020, Paper 1F, Q1 | 28 | Edexcel, GCSE, Summer 2018, Paper 1F, Q4 |
| 8 | Edexcel, GCSE, Autumn 2020, Paper 1F, Q4 | 29 | Edexcel, GCSE, Summer 2018, Paper 1F, Q14 |
| 9 | Edexcel, GCSE, Autumn 2020, Paper 2F, Q1 | 30 | Edexcel, GCSE, Summer 2018, Paper 2F, Q1 |
| 10 | Edexcel, GCSE, Autumn 2020, Paper 2F, Q4 | 31 | Edexcel, GCSE, Summer 2018, Paper 3F, Q1 |
| 11 | Edexcel, GCSE, Autumn 2020, Paper 3F, Q3 | 32 | Edexcel, GCSE, Summer 2018, Paper 3F, Q2 |
| 12 | Edexcel, GCSE, Autumn 2019, Paper 1F, Q4 | 33 | Edexcel, GCSE, Autumn 2017, Paper 1F, Q14 |
| 13 | Edexcel, GCSE, Autumn 2019, Paper 1F, Q5 | 34 | Edexcel, GCSE, Autumn 2017, Paper 2F, Q1 |
| 14 | Edexcel, GCSE, Summer 2019, Paper 2F, Q3 | 35 | Edexcel, GCSE, Summer 2017, Paper 1F, Q4 |
| 15 | Edexcel, GCSE, Summer 2019, Paper 3F, Q3 | 36 | Edexcel, GCSE, Summer 2017, Paper 2F, Q4 |
| 16 | Edexcel, GCSE, Summer 2019, Paper 1F, Q2 | 37 | Edexcel, GCSE, Summer 2022, Paper 1F, Q25 |
| 17 | Edexcel, GCSE, Summer 2019, Paper 1F, Q8 | 38 | Edexcel, GCSE, Summer 2023, Paper 1F, Q1] |
| 18 | Edexcel, GCSE, Summer 2019, Paper 2F, Q1 | 39 | Edexcel, GCSE, Summer 2023, Paper 1F, Q2 |
| 19 | Edexcel, GCSE, Summer 2019, Paper 3F, Q5 | 40 | Edexcel, GCSE, Summer 2023, Paper 2F, Q2 |
| 20 | Edexcel, GCSE, Autumn 2018, Paper 1F, Q1 | 41 | Edexcel, GCSE, Summer 2023, Paper 3F, Q2 |
| 21 | Edexcel, GCSE, Autumn 2018, Paper 1F, Q2 | 42 | Edexcel, GCSE, November 2022, Paper 2F, Q3 |

**1**

Write $\frac{3}{10}$ as a percentage.

.....%

**(Total for Question 1 is 1 mark)**

*[Edexcel, GCSE, Autumn 2021, Paper 1F, Q1]*

**2**

Write $\frac{9}{100}$ as a decimal.

.....

**(Total for Question 3 is 1 mark)**

*[Edexcel, GCSE, Autumn 2021, Paper 1F, Q3]*

**3**

Write 31% as a fraction.

.....

**(Total for Question 1 is 1 mark)**

*[Edexcel, GCSE, Autumn 2021, Paper 2F, Q1]*

**4**

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

1.02 0.12 1.20 0.21

.....

**(Total for Question 3 is 1 mark)**

*[Edexcel, GCSE, Autumn 2021, Paper 2F, Q3]*

**5**

Write the following fractions in order of size.
Start with the smallest fraction.

$\frac{5}{8}$ $\frac{2}{3}$ $\frac{4}{9}$ $\frac{3}{5}$

.....

**(Total for Question 15 is 2 marks)**

*[Edexcel, GCSE, Autumn 2021, Paper 2F, Q15]*

**6**

Write 45% as a decimal.

.....

**(Total for Question 1 is 1 mark)**

*[Edexcel, GCSE, Autumn 2021, Paper 3F, Q1]*

**7**

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

0.32 0.4 0.35 0.309

.....

**(Total for Question 1 is 1 mark)**

*[Edexcel, GCSE, Autumn 2020, Paper 1F, Q1]*

**8**

Write $\frac{3}{4}$ as a decimal.

.....

**(Total for Question 4 is 1 mark)**

*[Edexcel, GCSE, Autumn 2020, Paper 1F, Q4]*

**9**

Write 0.37 as a fraction.

.....

**(Total for Question 1 is 1 mark)**

*[Edexcel, GCSE, Autumn 2020, Paper 2F, Q1]*

**10**

Write $\frac{1}{4}$ as a percentage.

.....%

**(Total for Question 4 is 1 mark)**

*[Edexcel, GCSE, Autumn 2020, Paper 2F, Q4]*

**11**

Write 40% as a fraction.

.....

**(Total for Question 3 is 1 mark)**

*[Edexcel, GCSE, Autumn 2020, Paper 3F, Q3]*

**12**

Write the fraction $\frac{28}{70}$ in its simplest form.

.....

**(Total for Question 4 is 1 mark)**

*[Edexcel, GCSE, Autumn 2019, Paper 1F, Q4]*

**13**

Write 15% as a decimal.

.....

**(Total for Question 5 is 1 mark)**

*[Edexcel, GCSE, Autumn 2019, Paper 1F, Q5]*

**14**

Write 0.23 as a percentage.

..... %

**(Total for Question 3 is 1 mark)**

*[Edexcel, GCSE, Summer 2019, Paper 2F, Q3]*

**15**

Write 0.7 as a fraction.

.....

**(Total for Question 3 is 1 mark)**

*[Edexcel, GCSE, Summer 2019, Paper 3F, Q3]*

**16**

Write 0.73 as a percentage.

..... %

**(Total for Question 2 is 1 mark)**

*[Edexcel, GCSE, Summer 2019, Paper 1F, Q2]*

**17**

Write the following fractions in order of size.
Start with the smallest fraction.

$\frac{1}{3}$ $\frac{3}{4}$ $\frac{1}{4}$ $\frac{7}{12}$ $\frac{1}{2}$

.....

**(Total for Question 8 is 2 marks)**

*[Edexcel, GCSE, Summer 2019, Paper 1F, Q8]*

**18**

Write 0.75 as a fraction.

.....

**(Total for Question 1 is 1 mark)**

*[Edexcel, GCSE, Summer 2019, Paper 2F, Q1]*

**19**

Write 19% as a fraction.

.....

**(Total for Question 5 is 1 mark)**

*[Edexcel, GCSE, Summer 2019, Paper 3F, Q5]*

**20**

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

0.4 0.02 0.37 0.152 0.2

.....

**(Total for Question 1 is 1 mark)**

*[Edexcel, GCSE, Autumn 2018, Paper 1F, Q1]*

**21**

Write 0.6 as a percentage.

..... %

**(Total for Question 2 is 1 mark)**

*[Edexcel, GCSE, Autumn 2018, Paper 1F, Q2]*

**22**

Here are some fractions.

$$\frac{9}{12} \qquad \frac{6}{8} \qquad \frac{18}{24} \qquad \frac{10}{16} \qquad \frac{15}{20}$$

One of these fractions is **not** equivalent to $\frac{3}{4}$

(a) Which fraction?

.....

(1)

*[Edexcel, GCSE, Autumn 2018, Paper 1F, Q11]*

**23**

Write 0.31 as a fraction.

.....

**(Total for Question 5 is 1 mark)**

*[Edexcel, GCSE, Autumn 2018, Paper 2F, Q5]*

**24**

Here are four fractions.

$$\frac{3}{4} \qquad \frac{5}{7} \qquad \frac{19}{25} \qquad \frac{11}{15}$$

Write the fractions in order of size.
Start with the smallest fraction.

.....

**(Total for Question 6 is 2 marks)**

*[Edexcel, GCSE, Autumn 2018, Paper 2F, Q6]*

**25**

Write 3% as a fraction.

.....

**(Total for Question 2 is 1 mark)**

*[Edexcel, GCSE, Autumn 2018, Paper 3F, Q2]*

**26**

(a) Write the following numbers in order of size.
Start with the smallest number.

$-6$ 6 $-5$ 0 12

.....

(1)

(b) Write the following numbers in order of size.
Start with the smallest number.

0.078 0.78 0.87 0.708

.....

(1)

**(Total for Question 2 is 2 marks)**

*[Edexcel, GCSE, Summer 2018, Paper 1F, Q2]*

**27**

Write 20% as a fraction.

.....

**(Total for Question 3 is 1 mark)**

*[Edexcel, GCSE, Summer 2018, Paper 1F, Q3]*

**28**

Here is a list of four fractions.

$\frac{4}{16}$ $\frac{2}{8}$ $\frac{15}{60}$ $\frac{3}{9}$

One of these fractions is **not** equivalent to $\frac{1}{4}$

Write down this fraction.

.....

**(Total for Question 4 is 1 mark)**

*[Edexcel, GCSE, Summer 2018, Paper 1F, Q4]*

**29**

Gavin, Harry and Isabel each earn the same monthly salary.

Each month,

Gavin **saves** 28% of his salary and spends the rest of his salary

Harry spends $\frac{3}{4}$ of his salary and **saves** the rest of his salary

the amount of salary Isabel saves : the amount of salary she spends = 3 : 7

Work out who saves the most of their salary each month.
You must show how you get your answer.

**(Total for Question 14 is 4 marks)**

*[Edexcel, GCSE, Summer 2018, Paper 1F, Q14]*

**30**

Write $\frac{4}{50}$ as a percentage.

.....%

**(Total for Question 1 is 1 mark)**

*[Edexcel, GCSE, Summer 2018, Paper 2F, Q1]*

**31**

Write $\frac{9}{10}$ as a decimal.

.....

**(Total for Question 1 is 1 mark)**

*[Edexcel, GCSE, Summer 2018, Paper 3F, Q1]*

**32**

Write 0.3 as a percentage.

..... %

**(Total for Question 2 is 1 mark)**

*[Edexcel, GCSE, Summer 2018, Paper 3F, Q2]*

**33**

Here are two fractions.

$\frac{7}{5}$ $\frac{5}{7}$

Work out which of the fractions is closer to 1
You must show all your working.

**(Total for Question 14 is 3 marks)**

*[Edexcel, GCSE, Autumn 2017, Paper 1F, Q14]*

**34**

Write $\frac{7}{100}$ as a decimal.

.....

**(Total for Question 1 is 1 mark)**

*[Edexcel, GCSE, Autumn 2017, Paper 2F, Q1]*

**35**

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

.....%

**(Total for Question 4 is 1 mark)**

*[Edexcel, GCSE, Summer 2017, Paper 1F, Q4]*

**36**

Here are four fractions.

$$\frac{2}{5} \qquad \frac{11}{30} \qquad \frac{1}{2} \qquad \frac{7}{15}$$

Write these fractions in order of size.
Start with the smallest fraction.

.....

**(Total for Question 4 is 2 marks)**

*[Edexcel, GCSE, Summer 2017, Paper 2F, Q4]*

**37**

A delivery company has a total of 160 cars and vans.

the number of cars : the number of vans = 3 : 7

Each car and each van uses electricity or diesel or petrol.

$\frac{1}{8}$ of the cars use electricity.
25% of the cars use diesel.
The rest of the cars use petrol.

Work out the number of cars that use petrol.
You must show all your working.

.....

**(Total for Question 3 is 5 marks)**

*[Edexcel, GCSE, Summer 2022, Paper 1F, Q25]*

**38**

Write 38% as a decimal.

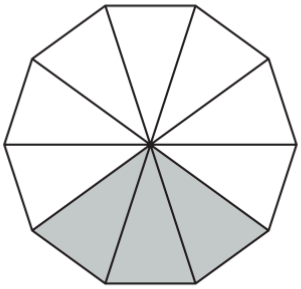
.....

**(Total for Question 1 is 1 mark)**

*[Edexcel, GCSE, Summer 2023, Paper 1F, Q1]*

**39**

What fraction of this shape is shaded?



.....

**(Total for Question 2 is 1 mark)**

*[Edexcel, GCSE, Summer 2023, Paper 1F, Q2]*

**40**

Write 0.7 as a fraction.

.....

**(Total for Question 2 is 1 mark)**

*[Edexcel, GCSE, Summer 2023, Paper 2F, Q2]*

**41**

Write $\frac{3}{10}$ as a percentage.

.....%

**(Total for Question 2 is 1 mark)**

*[Edexcel, GCSE, Summer 2023, Paper 3F, Q2]*

**42**

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

.....

**(Total for Question 3 is 1 mark)**

*[Edexcel, GCSE, November 2022, Paper 2F, Q3]*