

# BASIC FRACTIONS (Equivalent fractions and simplifying fractions)

GRADE 2



## Examination practice questions

### You should have:

A ruler, protractor, compasses, a pen, pencil, eraser, calculator.  
For some questions, you may need tracing paper.

### Instructions

- Use **black** ink or ball-point pen.
- Answer the questions in the spaces provided – *there may be more space than you need.*
- **Calculators may be used.**

### Information

- The marks for each question are shown in brackets.
- If the number of marks for two similar questions isn't the same, this is likely due to them being modelled on different specifications. In this case, it is worth considering both mark schemes.
- Use the number of marks for each question as a guide as to how much time to spend on each question. As a rough guide, you can multiply the number of marks by 1.2 to see how many minutes you should spend on a question.
- Questions will generally get more challenging as the document progresses. Some of the latter questions will go beyond the core grade level for this topic.

### Advice

- Read each question carefully before you start to answer it.
- Don't forget to have fun.
- Check your answers at the end.

**Q1.**

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Fill in the missing numbers in the boxes.

$$\frac{1}{2} = \frac{12}{\quad}$$

**(1 mark)****Q2.**

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Fill in the missing numbers in the boxes.

$$\frac{2}{12} = \frac{\quad}{6}$$

**(1 mark)****Q3.**

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Fill in the box below to make these two fractions equivalent to each other.

$$\frac{12}{\quad} = \frac{3}{5}$$

**(1 mark)****Q4.**

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Fill in the missing numbers in the boxes.

$$\frac{1}{\quad} = \frac{6}{24}$$

**(1 mark)****Q5.**

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Fill in the missing numbers in the boxes.

$$\frac{3}{4} = \frac{9}{\quad} = \frac{\quad}{24}$$

**(1 mark)**

**Q6.**

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Complete the statement:

$$\frac{3}{7} = \frac{\quad}{28}$$

(1 mark)

**Q7.**

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

.....

(1 mark)

**Q8.**

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Write 30 as a fraction of 48  
Give your fraction in its simplest form.

.....

(2 marks)

**Q9.**

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Write 36 as a fraction of 96  
Give your fraction in its simplest form.

.....

(2 marks)

**Q10.**

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In a football match, Barcelona had 74% possession of the ball.

Write this as a fraction in its simplest form.

.....

**(2 marks)**

**Q11.**

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There are 600 counters in a bag.

90 of the counters are yellow.

Work out 90 as a fraction of 600

Give your answer in its simplest form.

.....

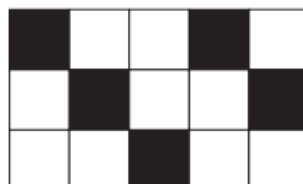
**(2 marks)**

**Q12.**

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What fraction of the following diagram is shaded?

Write your answer in its simplest form.



.....

**(2 marks)**

**Q13.**

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Which fraction is **not** equal to  $\frac{1}{2}$

$$\frac{2}{4}$$

$$\frac{4}{8}$$

$$\frac{2}{5}$$

$$\frac{7}{14}$$

.....

**(2 marks)**

**Q14.**

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Which two of these fractions are **not** equivalent to  $\frac{2}{3}$ ?

$$\frac{4}{6}$$

$$\frac{6}{10}$$

$$\frac{20}{30}$$

$$\frac{8}{12}$$

$$\frac{66}{100}$$

.....

**(2 marks)**

**Q15.**

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Which two of these fractions are equivalent to  $\frac{1}{4}$ ?

$$\frac{3}{10}$$

$$\frac{2}{8}$$

$$\frac{4}{12}$$

$$\frac{12}{40}$$

$$\frac{5}{20}$$

.....

**(2 marks)**

Here are some fractions.

$$\frac{3}{8} \quad \frac{5}{12} \quad \frac{7}{24} \quad \frac{1}{6}$$

Which of these fractions is nearest in size to  $\frac{1}{4}$ ?

.....

**(2 marks)**

12 litres of a drink is made by mixing water with 3 litres of orange juice.

What fraction of the drink is water?

Give your answer in its simplest form.

.....

**(2 marks)**

Karen makes a fraction using two number cards.



She says,

**'My fraction is equivalent to  $\frac{1}{2}$ . One of the number cards is 6'**

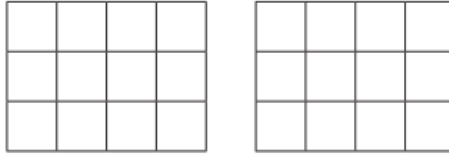
What could Karen's fraction be?

.....

**(2 marks)**

Which fraction,  $\frac{3}{4}$  or  $\frac{2}{3}$  is larger?

The grids below might help.



.....

**(2 marks)**

Which of these fractions has the largest value?

$$\frac{8+5}{3}$$

$$\frac{8}{3+5}$$

$$\frac{3+5}{8}$$

$$\frac{8+3}{5}$$

$$\frac{3}{3+5}$$

.....

**(3 marks)**

Using all the digits from 1 to 9 inclusive, Zoe wrote down a fraction which had four digits in the numerator and five digits in the denominator. He then noticed that the fraction simplified to give exactly one half.

Which of the following could have been the numerator of Zoe's fraction?

5314

6729

7341

7629

8359

.....

**(3 marks)**

Each of the fractions  $\frac{2637}{18459}$  and  $\frac{5274}{36918}$  uses the digits 1 to 9 exactly once.

The first fraction simplifies to  $\frac{1}{7}$ . What is the simplified form of the second fraction?

.....

**(3 marks)**