

Name: _____

GCSE (1 – 9)

Writing, Simplifying, and Ordering Fractions

Instructions

- Use **black** ink or ball-point pen.
- Answer all Questions.
- Answer the Questions in the spaces provided
– *there may be more space than you need.*
- Diagrams are **NOT** accurately drawn, unless otherwise indicated.
- You must **show all your working out.**

Information

- The marks for each Question are shown in brackets
– *use this as a guide as to how much time to spend on each Question.*

Advice

- Read each Question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every Question.
- Check your answers if you have time at the end

- 1 Write $\frac{12}{60}$ as a fraction in its simplest form.

$$\frac{12}{60} = \frac{2}{10} = \frac{1}{5}$$

$$\frac{1}{5}$$

(Total for Question 1 is 1 mark)

- 2 Write $\frac{18}{40}$ as a fraction in its simplest form.

$$\frac{18}{40} = \frac{9}{20}$$

$$\frac{9}{20}$$

(Total for Question 2 is 1 mark)

- 3 Write $\frac{28}{36}$ as a fraction in its simplest form.

$$\frac{28}{36} = \frac{14}{18} = \frac{7}{9}$$

$$\frac{7}{9}$$

(Total for Question 3 is 1 mark)

- 4 Write $\frac{6}{30}$ as a fraction in its simplest form.

$$\frac{6}{30} = \frac{3}{15} = \frac{1}{5}$$

$$\frac{1}{5}$$

(Total for Question 4 is 1 mark)

- 5 Write $\frac{72}{90}$ as a fraction in its simplest form.

$$\frac{72}{90} = \frac{8}{10} = \frac{4}{5}$$

$$\frac{4}{5}$$

(Total for Question 5 is 1 mark)

- 6 Write $\frac{28}{35}$ as a fraction in its simplest form.

$$\frac{28}{35} = \frac{4}{5}$$

$$\frac{4}{5}$$

(Total for Question 6 is 1 mark)

7 Here is a list of fractions.

$$\frac{15}{20} \quad \frac{33}{44} \quad \frac{12}{16} \quad \frac{26}{32} \quad \frac{21}{28}$$

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

Write down this fraction.

$$\frac{26}{32}$$

(Total for Question 7 is 1 mark)

8 Here is a list of fractions.

$$\frac{18}{45} \quad \frac{14}{30} \quad \frac{10}{25} \quad \frac{8}{20} \quad \frac{16}{40}$$

One of these fractions is not equivalent to $\frac{2}{5}$

Write down this fraction.

$$\frac{14}{30}$$

(Total for Question 8 is 1 mark)

9 Here is a list of fractions.

$$\frac{3}{9} \quad \frac{4}{12} \quad \frac{7}{21} \quad \frac{9}{27} \quad \frac{8}{26}$$

One of these fractions is not equivalent to $\frac{1}{3}$

Write down this fraction.

$$\frac{8}{26}$$

(Total for Question 9 is 1 mark)

10 There are 26 sweets in a bag.

15 of the sweets are red.
The rest of the sweets are white.

What fraction of the sweets are red?

$$\frac{15}{26}$$

(Total for Question 10 is 1 mark)

11 There are 17 counters in a bag.

The table shows the number of counters of each colour.

Colour	Red	Blue	Yellow	Green
Number of Counters	7	2	5	3

What fraction of the counters are blue?

$$\frac{2}{17}$$

(Total for Question 11 is 1 mark)

12 There are 9 pens in a box.

5 pens are red.
The rest of the pens are green.

$$9 - 5 = 4$$

What fraction of the pens are green?

$$\frac{4}{9}$$

(Total for Question 12 is 2 marks)

13 Last year the cost of Tom's train ticket was £42
This year the cost of Tom's train ticket increased to £50

Write down the increase in the cost of Tom's ticket as a fraction of last year's cost.

$$50 - 42 = 8$$

$$\frac{8}{42} \text{ or } \frac{4}{21}$$

$$\frac{8}{42}$$

(Total for Question 13 is 2 marks)

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

$$\frac{1}{6} \quad \frac{4}{15} \quad \frac{1}{5} \quad \frac{1}{3} \quad \frac{7}{30}$$
$$\frac{5}{30} \quad \frac{8}{30} \quad \frac{6}{30} \quad \frac{10}{30} \quad \frac{7}{30}$$

$$\frac{1}{6} \quad \frac{1}{5} \quad \frac{7}{30} \quad \frac{4}{15} \quad \frac{1}{3}$$

(Total for Question 14 is 2 marks)

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

$$\frac{19}{30} \quad \frac{5}{6} \quad \frac{2}{3} \quad \frac{11}{15} \quad \frac{3}{5}$$
$$\frac{25}{30} \quad \frac{20}{30} \quad \frac{22}{30} \quad \frac{18}{30}$$

$$\frac{3}{5} \quad \frac{19}{30} \quad \frac{2}{3} \quad \frac{11}{15} \quad \frac{5}{6}$$

(Total for Question 15 is 2 marks)

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

$$\frac{11}{20} \quad \frac{5}{8} \quad \frac{3}{4} \quad \frac{3}{5} \quad \frac{7}{10}$$
$$\frac{22}{40} \quad \frac{25}{40} \quad \frac{30}{40} \quad \frac{24}{40} \quad \frac{28}{40}$$

$$\frac{11}{20} \quad \frac{3}{5} \quad \frac{5}{8} \quad \frac{7}{10} \quad \frac{3}{4}$$

(Total for Question 16 is 2 marks)

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

$$\frac{1}{3} \quad \frac{2}{9} \quad \frac{1}{4} \quad \frac{3}{16} \quad \frac{3}{10}$$
$$0.\dot{3} \quad 0.2 \quad 0.25 \quad 0.1875 \quad 0.3$$

$$\frac{3}{16} \quad \frac{2}{9} \quad \frac{1}{4} \quad \frac{3}{10} \quad \frac{1}{3}$$

(Total for Question 17 is 2 marks)

18 Here are two fractions.

$$\frac{7 \times 7}{6 \times 7} \quad \frac{6 \times 6}{7 \times 6}$$

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

$$\frac{49}{42}$$

$$\frac{36}{42}$$

$$1 = \frac{42}{42}$$

$$\frac{49}{42} - \frac{42}{42} = \frac{7}{42}$$

$$\frac{42}{42} - \frac{36}{42} = \frac{6}{42}$$

$\frac{6}{7}$ is closer to 1

(Total for Question 18 is 3 marks)

19 Here are two fractions.

$$\frac{3 \times 7}{10 \times 7} \quad \frac{5 \times 10}{7 \times 10}$$

Work out which of the fractions is closer to $\frac{1}{2}$
You must show your working.

$$\frac{21}{70}$$

$$\frac{50}{70}$$

$$\frac{1}{2} = \frac{35}{70}$$

$$\frac{35}{70} - \frac{21}{70} = \frac{14}{70}$$

$$\frac{50}{70} - \frac{35}{70} = \frac{15}{70}$$

$\frac{3}{10}$ is closer to $\frac{1}{2}$

(Total for Question 19 is 3 marks)