Name	Date

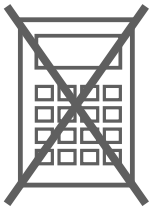
GCSE Mathematics 9-1

Fractions

(Non-Calculator)

Exam-Style Topic Paper	Total Marks
Time: 1 hour 2 minutes	**/ 55**

Instructions



- Use black ink or ball-point pen.
- Fill in the boxes at the top of this page with your name and date number.
- Answer all questions.
- Answer the questions in the spaces provided – there may be more space than you need.
- You must show all your working.
- Diagrams are NOT accurately drawn, unless otherwise indicated.
- Calculators may **not** be used.

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.
- Try to answer every question.
- Check your answers if you have time at the end.

1 Write down a fraction that is equivalent to $\frac{2}{3}$

.....

[1 mark]

2 Fill in the missing number.

$$\frac{3}{4} = \frac{\ldots\ldots}{20}$$

[1 mark]

3 Fill in the missing number.

$$\frac{5}{6} = \frac{25}{\ldots\ldots}$$

[1 mark]

4 Here are five fractions.

Circle the fractions that are equivalent to $\frac{1}{2}$

$$\frac{3}{6} \qquad \frac{4}{10} \qquad \frac{6}{12} \qquad \frac{5}{8} \qquad \frac{9}{18}$$

[2 marks]

5 Simplify $\frac{6}{8}$

.....

[1 mark]

6 Simplify $\frac{15}{25}$

.....

[1 mark]

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

.....

[1 mark]

8 Write $\frac{28}{42}$ in its simplest form.

.....

[1 mark]

9 Sam simplifies $\frac{12}{30}$ and gets $\frac{6}{15}$

Is Sam's fraction in its simplest form?

Explain your answer.

.....

.....

[1 mark]

10 There are 20 marbles in a bag.

5 of the marbles are red.

The rest of the marbles are white.

What fraction of the marbles are white?

Give your answer in its simplest form.

.....

[2 marks]

11 Write 40 minutes as a fraction of 1 hour.
Give your answer in its simplest form.

.....

[2 marks]

12 There are 30 students in a class.
12 of the students walk to school.
What fraction of the students do **not** walk to school?
Give your answer in its simplest form.

.....

[2 marks]

13 A bus ticket usually costs £8
In a sale, the bus ticket costs £6
What fraction of the usual price is the sale price?
Give your answer in its simplest form.

.....

[2 marks]

14 Write 45p as a fraction of £2
Give your answer in its simplest form.

[2 marks]

15 Which fraction is bigger, $\frac{3}{5}$ or $\frac{2}{3}$?
You must show your working.

[2 marks]

16 Write $<$, $>$ or $=$ in the box to make this statement correct.
You must show your working.

$$\frac{5}{8} \quad \square \quad \frac{7}{12}$$

[2 marks]

17 Write these fractions in order, starting with the smallest.

$$\frac{1}{2} \qquad \frac{3}{8} \qquad \frac{5}{16} \qquad \frac{3}{4}$$

[2 marks]

18 Write these fractions in order, starting with the smallest.

$$\frac{2}{3} \qquad \frac{7}{12} \qquad \frac{3}{4} \qquad \frac{5}{6}$$

.....

[2 marks]

19 Write these fractions in order, starting with the **largest**.

$$\frac{3}{5} \qquad \frac{7}{10} \qquad \frac{13}{20} \qquad \frac{1}{2}$$

.....

[2 marks]

20 Write these fractions in order, starting with the smallest.

$$\frac{5}{6} \qquad \frac{4}{9} \qquad \frac{2}{3} \qquad \frac{7}{18}$$

.....

[2 marks]

21 Write these fractions in order, starting with the smallest.

$$\frac{3}{4} \qquad \frac{5}{8} \qquad \frac{11}{16} \qquad \frac{1}{2}$$

.....

[2 marks]

22 Write these fractions in order, starting with the smallest.

$$\frac{2}{5} \qquad \frac{3}{10} \qquad \frac{1}{4} \qquad \frac{7}{20}$$

.....

[2 marks]

23 Write these fractions in order, starting with the **largest**.

$$\frac{5}{9} \qquad \frac{2}{3} \qquad \frac{1}{2} \qquad \frac{7}{12}$$

.....

[2 marks]

24 Write these fractions in order, starting with the smallest.

$$\frac{3}{4} \qquad \frac{2}{3} \qquad \frac{7}{10} \qquad \frac{4}{5}$$

.....

[2 marks]

25 Four friends are reading the same book.

Ana has read $\frac{3}{5}$ of the book.

Bea has read $\frac{5}{8}$ of the book.

Cal has read $\frac{1}{2}$ of the book.

Dev has read $\frac{13}{20}$ of the book.

Write the names in order, starting with the person who has read the least.

You must show your working.

[2 marks]

26 Here are two fractions.

$$\frac{7}{8} \qquad \frac{5}{6}$$

Work out which one of these is closer to 1

You must show your working.

[3 marks]

27 Here are two fractions.

$$\frac{3}{8} \qquad \frac{5}{12}$$

Work out which one of these is closer to $\frac{1}{2}$

You must show your working.

.....

[3 marks]

28 Lily says,

"$\frac{5}{6}$ is closer to $\frac{3}{4}$ than $\frac{2}{3}$ is."

Is Lily correct?

You must show your working.

[3 marks]

29 Ali and Ben each buy a pizza of the same size.

Ali eats $\frac{3}{8}$ of his pizza.

Ben eats $\frac{5}{12}$ of his pizza.

Who eats more pizza?

You must show your working.

[2 marks]

30 Priya and Josh take two different spelling tests.

Priya gets $\frac{17}{20}$ of her test right.

Josh gets $\frac{21}{25}$ of his test right.

Who did better?

You must show your working.

.....

[2 marks]