



1.5D Writing, Simplifying and Ordering Fractions: Fluency and Exam Drill

EDEXCEL Edexcel 1MA1 · Calculator allowed · about 30 minutes

Total Marks

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Name: _____ Date: ____ / ____ / ____

Answer ALL questions. Show all your working.

- 1** Write the fraction $\frac{3}{4}$ as an equivalent fraction with denominator 20.

(Total for Question 1 is 1 mark)

- 2** Write $\frac{5}{6}$ as an equivalent fraction with denominator 18.

(Total for Question 2 is 1 mark)

- 3** State an equivalent fraction to $\frac{7}{8}$ that has numerator 21.

(Total for Question 3 is 1 mark)

- 4** Write $2\frac{1}{2}$ as an improper fraction.

(Total for Question 4 is 1 mark)

- 5** Simplify $\frac{42}{56}$ to its lowest terms.

(Total for Question 5 is 2 marks)

6 Simplify $45/60$ to lowest terms.

(Total for Question 6 is 2 marks)

7 Simplify $14/49$ to lowest terms.

(Total for Question 7 is 1 mark)

8 Simplify $56/90$ to lowest terms.

(Total for Question 8 is 2 marks)

9 Order these fractions from smallest to largest: $3/5$, $7/10$, $2/3$.

(Total for Question 9 is 2 marks)

10 Order these mixed numbers from largest to smallest: $2 \frac{1}{4}$, $2 \frac{2}{9}$, $2 \frac{1}{3}$.

(Total for Question 10 is 2 marks)

11 Work out which is larger: $5/8$ or $3/5$. Give a reason for your answer.

(Total for Question 11 is 2 marks)

- 12** A recipe requires $\frac{3}{2}$ cups of sugar. Emma has $1\frac{1}{4}$ cups. How much more sugar does she need? Give your answer as a fraction in lowest terms.

(Total for Question 12 is 3 marks)

- 13** Show that $\frac{7}{9} + \frac{5}{6} = \frac{29}{18}$. Give the full working.

(Total for Question 13 is 3 marks)

- 14** Which of the following mixed numbers are equal? Explain fully.
 $1\frac{3}{5}$, $1\frac{9}{15}$, $1\frac{6}{10}$, $1\frac{11}{15}$

(Total for Question 14 is 4 marks)

Mark scheme · 1.5D Writing, Simplifying and Ordering Fractions: Fluency and Exam Drill

Question 1

- **B1** 15/20 cao
- **Answer:** 15/20

Question 2

- **B1** 15/18 cao
- **Answer:** 15/18

Question 3

- **B1** 21/24 cao
- **Answer:** 21/24

Question 4

- **B1** 5/2 cao
- **Answer:** 5/2

Question 5

- **M1** divide numerator and denominator by a common factor, e.g. 14 oe
- **A1** 3/4 cao
- **Answer:** 3/4

Question 6

- **M1** divide numerator and denominator by a common factor, e.g. 15 oe
- **A1** 3/4 cao
- **Answer:** 3/4

Question 7

- **B1** 2/7 cao
- **Answer:** 2/7

Question 8

- **M1** divide numerator and denominator by 2 to 28/45 oe
- **A1** 28/45 cao
- **Answer:** 28/45

Question 9

- **M1** use common denominators or compare decimals, e.g. $\frac{3}{5} = \frac{6}{10}$, $\frac{2}{3} = \frac{20}{30}$ or 0.666... oe
- **A1** 3/5, 2/3, 7/10 cao
- **Answer:** 3/5, 2/3, 7/10

Question 10

- **M1** convert to improper fractions or compare decimals, e.g. $2\frac{1}{4} = 2.25$, $2\frac{2}{9}$ approx 2.222..., $2\frac{1}{3}$ approx 2.333... oe
- **A1** $2\frac{1}{3}$, $2\frac{1}{4}$, $2\frac{2}{9}$ cao
- **Answer:** $2\frac{1}{3}$, $2\frac{1}{4}$, $2\frac{2}{9}$

Question 11

- **M1** compare by common denominator or cross-multiplication, e.g. $\frac{5}{8} = \frac{25}{40}$, $\frac{3}{5} = \frac{24}{40}$ oe
- **A1** 5/8 is larger, with reason cao
- **Answer:** 5/8 is larger because $\frac{25}{40} > \frac{24}{40}$

Question 12

- **M1** convert $1 \frac{1}{4}$ to an improper fraction, $\frac{5}{4}$ oe
- **M1** subtract: $\frac{3}{2} - \frac{5}{4} = \frac{6}{4} - \frac{5}{4}$ oe
- **A1** $\frac{1}{4}$ cao
- **Answer: $\frac{1}{4}$**

Question 13

- **M1** convert $\frac{7}{9}$ to $\frac{14}{18}$ cso
- **M1** convert $\frac{5}{6}$ to $\frac{15}{18}$ cso
- **A1** $\frac{14}{18} + \frac{15}{18} = \frac{29}{18}$ cso
- **Answer: $\frac{29}{18}$**

Question 14

- **M1** convert $\frac{3}{5}$ to $\frac{9}{15}$ oe
- **M1** convert $\frac{3}{5}$ to $\frac{6}{10}$ oe (or convert others to common denominator) oe
- **M1** identify that $1 \frac{3}{5} = 1 \frac{9}{15} = 1 \frac{6}{10}$ oe
- **A1** state that $1 \frac{3}{5}$, $1 \frac{9}{15}$ and $1 \frac{6}{10}$ are equal and $1 \frac{11}{15}$ is different cao
- **Answer: $1 \frac{3}{5}$, $1 \frac{9}{15}$ and $1 \frac{6}{10}$ are equal because $\frac{3}{5} = \frac{9}{15} = \frac{6}{10}$; $1 \frac{11}{15}$ is not equal to them.**