



EP.M98 Comparing and Ordering Fractions, Decimals and Percentages

GL ASSESSMENT GL-11PLUS-MATHS · Calculators not allowed · about 55 minutes

Total Marks

Name: _____ Date: ____ / ____ / ____

Answer ALL questions. Show all your working.

1 Which of these is the largest?

- ☐ A) $\frac{3}{4}$
- ☐ B) 74%
- ☐ C) 0.749
- ☐ D) 0.8
- ☐ E) 75%

(Total for Question 1 is 1 mark)

2 Which of the following is the largest value?

- ☐ A) 0.48
- ☐ B) 48%
- ☐ C) $\frac{47}{100}$
- ☐ D) 0.479
- ☐ E) 0.481

(Total for Question 2 is 1 mark)

3 Write $\frac{7}{20}$ as a percentage.

(Total for Question 3 is 1 mark)

4 Which of these is equal to 0.125?

- ☐ A) $\frac{12}{1000}$
- ☐ B) $\frac{1}{8}$
- ☐ C) $\frac{5}{4}$
- ☐ D) $\frac{1.25}{1000}$
- ☐ E) $\frac{125}{10}$

(Total for Question 4 is 1 mark)

- 5 Which number is the odd one out?
Choose the number that is not equal to the others.

(Total for Question 5 is 1 mark)

- 6 Which of these is the decimal representation of $\frac{3}{20}$?

- ☐ A) 0.15
☐ B) 0.015
☐ C) 0.005
☐ D) 0.3
☐ E) 0.75

(Total for Question 6 is 1 mark)

- 7 Order these values from smallest to largest: 0.2, 18%, 0.205, $\frac{19}{100}$

(Total for Question 7 is 2 marks)

- 8 Order these numbers from smallest to largest: $\frac{11}{25}$, 43%, 0.431, $\frac{7}{16}$

(Total for Question 8 is 3 marks)

- 9 A jumper costs £28.80. It is reduced by 15%. Work out the new price.

(Total for Question 9 is 2 marks)

10 Order these values from largest to smallest: $\frac{5}{6}$, 83%, 0.835, $\frac{49}{60}$

(Total for Question 10 is 3 marks)

11 One of these is not equal to the others. Identify which and explain briefly why: $\frac{3}{10}$, 30%, 0.300, $\frac{31}{101}$

(Total for Question 11 is 2 marks)

12 Sophie says that $\frac{3}{8}$ is 40%. Is she correct? Show your working and state the correct percentage.

(Total for Question 12 is 3 marks)

13 Write 0.58 as a fraction in its simplest form.

(Total for Question 13 is 2 marks)

14 There are 30 pupils in a class. 12 are girls. Express the proportion of girls as a decimal and as a percentage.

(Total for Question 14 is 2 marks)

- 15** Priya paints $\frac{3}{5}$ of a fence, then paints another 24% of the fence. What fraction of the fence is painted now? Give your answer in its simplest form.

(Total for Question 15 is 3 marks)

- 16** Order these numbers from smallest to largest: $\frac{7}{10}$, 0.705, 70.6%, $\frac{71}{100}$

(Total for Question 16 is 3 marks)

Mark scheme · EP.M98 Comparing and Ordering Fractions, Decimals and Percentages

Question 1

- **B1** correct option D (0.8) cao
- **Answer: D) 0.8 (0.8 is the largest because $0.8 = 80\%$, greater than 75% or 0.75 etc.)**

Question 2

- **B1** correct option E (0.481) cao
- **Answer: E) 0.481**

Question 3

- **B1** 35% cao
- **Answer: 35%**

Question 4

- **B1** correct option B ($1/8$) cao
- **Answer: B) $1/8$**

Question 5

- **B1** correct option E ($3/7$) cao
- **Answer: E) $3/7$ (0.428... not equal to 0.4)**

Question 6

- **B1** correct option A (0.15) cao
- **Answer: A) 0.15**

Question 7

- **M1** Conversion to common form seen (eg convert each to decimals or percentages)
- **A1** Correct order: 18%, 19/100, 0.2, 0.205 cao
- **Answer: 18%, 19/100, 0.2, 0.205**

Question 8

- **M1** Some conversions shown (eg $11/25 = 0.44$, $43\% = 0.43$) or equivalent method
- **M1** Remaining conversions shown (eg $7/16 = 0.4375$, 0.431 seen) or equivalent
- **A1** Correct order: 43%, 0.431, 7/16, 11/25 cao
- **Answer: 43% (0.43), 0.431, 7/16 (0.4375), 11/25 (0.44)**

Question 9

- **M1** Method to find 15% of £28.80 seen (eg $10\% = £2.88$, $5\% = £1.44$ or 0.15×28.80)
- **A1** £24.48 cao
- **Answer: £24.48**

Question 10

- **M1** Conversions seen for at least two values (eg $5/6 = 0.8333...$, $49/60 = 0.8166...$)
- **M1** Conversions for the remaining values or equivalent ordering steps
- **A1** Correct descending order: 0.835, 5/6, 83%, 49/60 cao
- **Answer: 0.835, 5/6 (0.8333...), 83% (0.83), 49/60 (0.8166...)**

Question 11

- **M1** Work shown to compare values (eg convert $31/101$ to decimal 0.3069...)
- **A1** Correct identification and reason: $31/101$ is not equal because it is about 0.307, others are 0.3 cao
- **Answer: $31/101$; it is approximately 0.3069 so not equal to 0.300**

Question 12

- **M1** Convert $\frac{3}{8}$ to a decimal or percentage (eg $3 \div 8 = 0.375$) or equivalent
- **M1** Multiply decimal by 100 or show percentage form ($0.375 \times 100 = 37.5\%$)
- **A1** Conclusion that Sophie is incorrect and $\frac{3}{8} = 37.5\%$ cao
- **Answer: No. $\frac{3}{8} = 0.375 = 37.5\%$**

Question 13

- **M1** Correct method to write 0.58 as $\frac{58}{100}$ or equivalent seen
- **A1** $\frac{29}{50}$ cao
- **Answer: $\frac{29}{50}$**

Question 14

- **M1** Method to convert fraction $\frac{12}{30}$ to decimal seen ($12 \div 30 = 0.4$)
- **A1** 0.4 and 40% cao
- **Answer: 0.4 and 40%**

Question 15

- **M1** Convert $\frac{3}{5}$ to percentage or fraction ($\frac{3}{5} = 60\%$) or equivalent
- **M1** Add $60\% + 24\% = 84\%$ or add fractions correctly
- **A1** 84% expressed in simplest fractional form = $\frac{21}{25}$ cao
- **Answer: $\frac{21}{25}$**

Question 16

- **M1** Conversions for at least two values shown (eg $\frac{7}{10} = 0.700$, $\frac{71}{100} = 0.71$)
- **M1** Conversions for remaining values or equivalent comparisons
- **A1** Correct order: $\frac{7}{10}$, 0.705, 70.6%, $\frac{71}{100}$ cao
- **Answer: $\frac{7}{10}$ (0.700), 0.705, 70.6% (0.706), $\frac{71}{100}$ (0.71)**