2.31-2 Fractions, Decimals and Percentages Depth Set 2: 10-minute Pack

GL ASSESSMENT EP.M36 · Calculators not allowed · about 10 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

Fractions, Decimals and Percentages Depth Set 2

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A second deeper 11+ fractions, decimals and percentages paper for scholarship-level preparation, complementing EP.M3 (Fractions), EP.M4 (Decimals), EP.M5 (Percentages), EP.M24 (Fractions, Decimals and Percentages Mixed Drill) and EP.M30 (Fractions, Decimals and Percentages Depth). It opens with equivalence, conversion and ordering across all three forms, moves through all four operations with fractions including mixed numbers, then builds to percentage change, reverse percentage, and worded multi-step problems that combine a fraction step with a percentage step. Questions are ramped from straightforward warm-up items to demanding multi-step and reverse-reasoning problems designed to stretch the strongest candidates.

1 Calculate 7/8 divided by 3/4, giving your answer as a mixed number in its simplest form.

(2)

2 Find 7/12 of 84.

- ☐ A) 49
- ☐ B) 7
- ☐ C) 56
- ☐ D) 42
- ☐ E) 63

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3 Calculate 15% of 220.

(2)

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4 Calculate 3/5 x 4/7, giving your answer in its simplest form.

- ☐ A) 7/12
- ☐ B) 12/7
- ☐ C) 3/5
- ☐ D) 12/35
- ☐ E) 6/35

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5 Write 0.85 as a fraction in its simplest form.

(1)

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6 Order these four values from smallest to largest: 0.6, 61%, 5/8, 63%

(2)

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7 A number is decreased by 15% to give 102. What was the original number?

- ☐ A) 117.3
- ☐ B) 120
- ☐ C) 86.7
- ☐ D) 136
- ☐ E) 113.3

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8 A recipe for 6 people uses 2 3/4 cups of flour. Grace wants to make the same recipe for 9 people. How many cups of flour does she need?

(3)

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Mark scheme · 2.31-2 Fractions, Decimals and Percentages Depth Set 2: 10-minute Pack

Question 1

correctly inverts and multiplies, e.g. 7/8 x 4/3	**M1**
1 1/6 cao (oe 7/6)	**A1**

Answer: 1 1/6

Question 2

A (49) cao	**B1**

Answer: A) 49

Question 3

10% of 220 = 22 and 5% of 220 = 11, oe	**M1**
33 cao	**A1**

Answer: 33

Question 4

D (12/35) cao	**B1**

Answer: D) 12/35

Question 5

17/20 cao	**B1**

Answer: 17/20

Question 6

converts all four values to the same format, e.g. decimals 0.60, 0.61, 0.625, 0.63	**M1**
0.6, 61%, 5/8, 63% cao	**A1**

Answer: 0.6, 61%, 5/8, 63%

Question 7

B (120) cao	**B1**

Answer: B) 120

Question 8

finds the flour needed for 1 person, e.g. 2 3/4 / 6 = 11/24 cup, or sets up the scale factor 9/6 = 3/2	**M1**
multiplies correctly, e.g. 11/4 x 3/2 = 33/8	**M1**
4 1/8 cups cao	**A1**

Answer: 4 1/8 cups

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