2.68-5 Fractions and Decimals: Practice Set 5: 30-minute Pack

Total Marks

GL ASSESSMENT GL-11PLUS-MATHS · Calculators not allowed · about 30 minutes

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

Fractions and Decimals: Practice Set 5

Revision Library

A fifth original 11+ practice set combining fractions and decimals, complementing EP.M3 (Fractions), EP.M3B (Fractions: Practice Set 2), EP.M4 and EP.M4B (Decimals), EP.M30 and EP.M36 (Fractions, Decimals and Percentages Depth), EP.M47 (Fractions: Practice Set 3), EP.M48 (Decimals: Practice Set 3) and EP.M65 (Fractions: Practice Set 4). It covers simplifying and ordering fractions, converting between fractions, decimals and percentages, all four operations with fractions and decimals, place value and rounding, fractions of an amount, and worded and multi-step reasoning problems that draw on both fractions and decimals together. Questions are ramped from straightforward warm-up items to demanding multi-step problems designed to stretch the strongest candidates.

1 Work out 11/12 - 5/8, giving your answer in its simplest form.

(2)

2 Work out 3/10 x 5/6, giving your answer in its simplest form.

(2)

3 Work out 7/8 / 2/3, giving your answer as a mixed number in its simplest form.

(2)

© Revision Library | revisionlibrary.co.uk

4 Work out 1.5 x 3.4.

(2)

---

5 Write 11/40 as a decimal.

(2)

---

6 Complete each conversion below.

(a) Write 0.6 as a percentage. **(1)**

(b) Write 15% as a decimal. **(1)**

(c) Write 3/8 as a decimal. **(1)**

---

7 Simplify 32/48 fully.

- ☐ A) 8/12
- ☐ B) 4/6
- ☐ C) 2/3
- ☐ D) 3/4
- ☐ E) 4/3

---

8 Which of these fractions is NOT equivalent to 4/11?

- ☐ A) 8/22
- ☐ B) 16/44
- ☐ C) 24/60
- ☐ D) 20/55
- ☐ E) 28/77

© Revision Library | revisionlibrary.co.uk

9 Find the missing number: 5/8 = ?/56

- ☐ A) 30
- ☐ B) 40
- ☐ C) 35
- ☐ D) 42
- ☐ E) 28

---

10 Write these numbers in order, starting with the largest: 0.502, 0.05, 0.525, 0.52

(1)

---

11 Tariq has £150. He spends 3/10 of it on a helmet and lock for his bicycle. He then spends 2/5 of what remains on a bike light. How much money does Tariq have left?

(3)

---

12 A charity shop in Truro sells 3 identical umbrellas for a total of £11.85. Priya buys one of these umbrellas and a raincoat costing £14.20. She pays with a £20 note. Work out how much change she receives.

(4)

© Revision Library | revisionlibrary.co.uk

13 7/9 of a number is 168. Find 5/12 of the same number.

(4)

---

14 Calculate (3/4 + 1/6) / (7/9 - 5/12), giving your answer as a fraction in its simplest form.

(4)

© Revision Library | revisionlibrary.co.uk

Mark scheme · 2.68-5 Fractions and Decimals: Practice Set 5: 30-minute Pack

A correct answer earns full marks unless the question asks for working, a method, proof or explanation.

Question 1

both fractions converted to a common denominator, e.g. 22/24 - 15/24	**M1**
7/24 cao	**A1**

Answer: 7/24

Question 2

3/10 x 5/6 = 15/60 seen (or equivalent unsimplified fraction)	**M1**
1/4 cao	**A1**

Answer: 1/4

Question 3

7/8 x 3/2 seen (flip and multiply)	**M1**
1 5/16 cao	**A1**

Answer: 1 5/16

Question 4

15 x 34 (= 510) seen, or equivalent complete method	**M1**
5.1 cao	**A1**

Answer: 5.1

Question 5

1/40 = 0.025 seen, or equivalent complete method	**M1**
0.275 cao	**A1**

Answer: 0.275

Question 6

(a) 60% cao	**B1**

(a) Answer: 60%

(b) 0.15 cao	**B1**

(b) Answer: 0.15

(c) 0.375 cao	**B1**

(c) Answer: 0.375

Question 7

C) 2/3 cao (HCF of 32 and 48 is 16)	**B1**

Answer: C) 2/3

Question 8

C) 24/60 cao (24/60 = 2/5, not 4/11)	**B1**

Answer: C) 24/60

Question 9

C) 35 cao	**B1**

Answer: C) 35

Question 10

0.525, 0.52, 0.502, 0.05 cao	**B1**

Answer: 0.525, 0.52, 0.502, 0.05

Question 11

amount spent on the helmet and lock found, 3/10 x 150 = 45, and £105 remaining	**M1**
2/5 x 105 (= 42) found, ft from the remaining amount	**M1**
£63 cao	**A1**

Answer: £63

Question 12

11.85 / 3 (= 3.95) seen, or equivalent method to find the cost of one umbrella	**M1**
3.95 + 14.20 (= 18.15) seen	**M1**
20.00 - 18.15, dependent on the previous marks	**dM1**
£1.85 cao	**A1**

Answer: £1.85

Question 13

168 / 7 x 9, or equivalent complete method to find the whole number	**M1**
216 identified as the number	**A1**
5/12 x 216, ft from the number found	**M1**
90 cao	**A1**

Answer: 90

Question 14

3/4 + 1/6 (= 11/12) evaluated correctly	**M1**
7/9 - 5/12 (= 13/36) evaluated correctly	**M1**
11/12 x 36/13 seen (flip and multiply)	**M1**
33/13 oe 2 7/13 cao	**A1**

Answer: 33/13 (2 7/13)

© Revision Library | revisionlibrary.co.uk