

Grade 7 - Multistep Problems with Rational Numbers - Test Answer Key

Common Core 7.EE.B.3 · maths-pdf.fr/en/

Use this answer key and scoring guide to grade the multistep problems test. Each solution shows the full work, and the scoring note explains how the points are awarded. Give partial credit for correct steps even when the final answer is wrong.

Grade 7 · Common Core State Standards: **7.EE.B.3**

Question 1 - Forms of a number [2 pts]

$$5 \div 8 = 0.625 = 62.5\%$$

$$0.04 = \frac{4}{100} = \frac{1}{25}$$

0.625; 62.5%; $\frac{1}{25}$

Scoring: 1 point for the decimal and percent; 1 point for the fraction.

Question 2 - Estimate and compute [2 pts]

Estimate: $30 \times 2 = 60$.

Exact: $29.7 \times 2.1 = 62.37$, which is close to 60.

About 60; 62.37 is reasonable

Scoring: 1 point for a reasonable estimate; 1 point for the exact value and the comparison.

Question 3 - Mixed forms [2 pts]

$$60 - 10 = 50$$

50

Scoring: 1 point for each product; the final subtraction is included in the second point.

Question 4 - Overtime [2 pts]

Regular: $15 \times 40 = 600$.

Overtime: $15 \times 1.5 \times 4 = 90$.

$$600 + 90 = 690$$

\$690

Scoring: 1 point for the regular pay; 1 point for the overtime and total.

Question 5 - Recipe [2 pts]

$$0.6 \times 3\frac{1}{3} = \frac{3}{5} \times \frac{10}{3} = 2$$

2 quarts

Scoring: 1 point for the correct setup; 1 point for the answer.

Question 6 - Team dinner [2 pts]

Total: $18.50 + 7.25 + 6.75 = 32.50$.

With tip: $1.2 \times 32.50 = 39$.

$$39 \div 6 = 6.50$$

\$6.50

Scoring: 1 point for the total with tip; 1 point for the share.

Question 7 - Debt and earnings [2 pts]

$$-18 + 42 = 24.$$

$$\frac{1}{3} \times 24 = 8 \text{ given; } 24 - 8 = 16 \text{ kept.}$$

Gives \$8; keeps \$16

Scoring: 1 point for the balance; 1 point for the gift and the amount kept.

Question 8 - Budget [3 pts]

- a. $\frac{3}{10} \times 2400 = 720$ for rent; $\frac{1}{4} \times 2400 = 600$ for food.
b. $720 + 600 = 1320$; $1320 \div 2400 = 0.55 = 55\%$.
c. $2400 - 1320 - 300 = 780$.

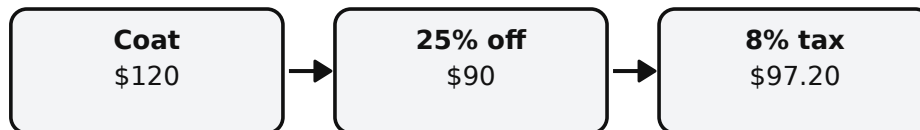
Item	Amount
Rent	\$720
Food	\$600
Car	\$300
Left	\$780

Budget summary.

Scoring: 1 point for each part.

Question 9 - Coat purchase [3 pts]

- a. $0.75 \times 120 = 90$.
b. $1.08 \times 90 = 97.20$.
c. $100 - 97.20 = 2.80$, so her change is \$2.80.



Results.

Scoring: 1 point for each part.

Total

20 points