

Unit Rates and Better Buys

Grade 6 math · Test Answer Key · Standards: 6.RP.A.2, 6.RP.A.3b

Each solution shows the expected steps and a scoring guide. Give partial credit when the setup is correct but a small arithmetic slip changes the final number.

Standards: 6.RP.A.2, 6.RP.A.3b · **Level:** Grade 6

Question 1 Bottling Rate (2 points)

- a. $252 \div 6 = \mathbf{42 \text{ cups per minute.}}$
- b. $42 \times 14 = \mathbf{588 \text{ cups.}}$

Scoring: 1 point for each part.

Question 2 Unit Price of Rice (2 points)

- a. $8.45 \div 5 = \mathbf{\$1.69 \text{ per pound.}}$
- b. $1.69 \times 12 = \mathbf{\$20.28.}$

Scoring: 1 point for each part.

Question 3 Double Number Line (2 points)

- a. $26 \div 4 = 6.5$ gallons per minute, so the missing values are **6.5 and 19.5.**
- b. $6.5 \times 10 = \mathbf{65 \text{ gallons.}}$



Each minute adds 6.5 gallons.

Scoring: 1 point for each part.

Question 4 Best Buy (3 points)

X: $4.50 \div 18 = \$0.25$ per ounce. Y: $6.90 \div 30 = \$0.23$ per ounce. Z: $5.76 \div 24 = \$0.24$ per ounce.

The lowest unit price is Y. **Size Y.**

Scoring: 2 points for the three unit prices (1 point if two are correct); 1 point for the conclusion.

Question 5 Train Travel (2 points)

- a. $72 \times 2.5 = \mathbf{180 \text{ miles.}}$
- b. $342 \div 72 = \mathbf{4.75 \text{ hours.}}$

Scoring: 1 point for each part.

Question 6 Constant Unit Price (2 points)

- a. $14 \div 4 = 3.5$, $24.5 \div 7 = 3.5$, and $35 \div 10 = 3.5$, so every column gives the same rate.
- b. **\$3.50 per gallon.**

Scoring: 1 point for each part.

Question 7 Who Is Faster? (3 points)

Dana: $15 \div 2 = 7.5$ miles per hour. Eli: $24 \div 3 = 8$ miles per hour.

$8 - 7.5 = 0.5$. **Eli is faster, by 0.5 mile per hour.**

Scoring: 1 point for each speed; 1 point for the correct comparison.

Question 8 Cookie Packing (3 points)

- a. $360 \div 40 = \mathbf{9 \text{ cookies per minute.}}$
- b. 2 hours = 120 minutes, so $9 \times 120 = 1,080$ cookies, and $1,080 \div 12 = \mathbf{90 \text{ boxes.}}$
- c. $90 \times 5.50 = \mathbf{\$495.}$

Scoring: 1 point for each part.

Question 9 Rate Language (1 point)

A unit rate has 1 in the second part. **\$0.40 per apple.**

Scoring: 1 point for the correct choice.