

Unit Rates and Better Buys

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

Name: _____ Date: _____ Class: _____

This test has 9 questions worth 20 points in total and fits a 45-minute period. Show all work, include units in every answer, and round only when a question says so.

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

Time: 45 minutes · 9 questions · Total: 20 points · Calculator: as allowed by your teacher

Question 1 Bottling Rate (2 points)

A pitcher machine fills 252 cups in 6 minutes.

- Write the unit rate in cups per minute. (1 point)
- How many cups does it fill in 14 minutes? (1 point)

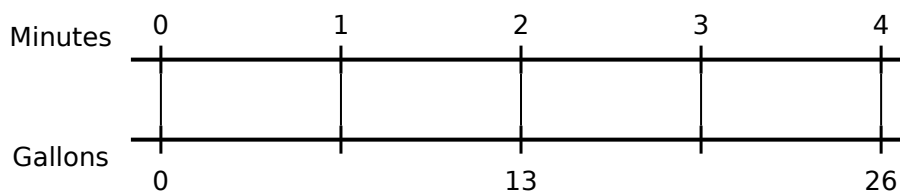
Question 2 Unit Price of Rice (2 points)

Five pounds of rice cost \$8.45.

- Find the price of one pound. (1 point)
- Find the price of 12 pounds at the same rate. (1 point)

Question 3 Double Number Line (2 points)

A hose fills a tank at a constant rate, shown on the double number line.



Minutes (top) and gallons (bottom).

- Find the two missing values for 1 minute and 3 minutes. (1 point)
- How many gallons does the hose deliver in 10 minutes? (1 point)

Question 4 Best Buy (3 points)

A snack comes in three sizes: Size X is 18 ounces for \$4.50, Size Y is 30 ounces for \$6.90, and Size Z is 24 ounces for \$5.76. Which size is the best buy? Show the unit price of each.

Question 5 Train Travel (2 points)

A train travels at a constant 72 miles per hour.

- How far does it travel in 2.5 hours? (1 point)
- How long does it take to travel 342 miles? (1 point)

Question 6 Constant Unit Price (2 points)

The table shows the cost of gasoline.

Gallons	4	7	10
Cost	\$14.00	\$24.50	\$35.00

Gasoline cost.

- Show that the cost per gallon is the same in every column. (1 point)
- State the unit price. (1 point)

Question 7 Who Is Faster? (3 points)

Dana runs 15 miles in 2 hours. Eli runs 24 miles in 3 hours. Find each runner's speed, say who is faster, and tell by how many miles per hour.

Question 8 Cookie Packing (3 points)

A bakery packs 360 cookies in 40 minutes. Each box holds 12 cookies and sells for \$5.50.

- How many cookies are packed per minute? (1 point)
- How many boxes can be filled in 2 hours? (1 point)
- How much money do those boxes bring in? (1 point)

Question 9 Rate Language (1 point)

Which of these is a unit rate? Write it. 5 apples for \$2; \$0.40 per apple; 10 apples for \$4.