

Step 6: Simplify by multiplying the numbers remaining on the right side of the equal sign (8 gallons \times 3).

Answer: 24 gallons

Example 2: The price of jellybeans, j , varies directly as the number of pounds, p , that are purchased. Find the equation that relates the two variables if jellybeans are \$1.95 per pound.

$$(1) \quad y = kx, j = kp$$

$$(2) \quad j = 1.95p$$

Step 1: Remember that the formula for direct variation is: $y = kx$ and substitute the variables from the question into the appropriate places.

Step 2: Since the jellybeans are always \$1.95 per pound, the constant, k , equals 1.95. Substitute 1.95 into the equation for k .

Answer: $j = 1.95p$

Activities that can help reinforce the concept of direct variation are as follows.

1. Have students solve the equation $y = kx$ for k , and then substitute two sets of (x, y) values into the equation and compare the values for k . If they are the same, then x and y have a direct variation relationship.

2. Have the student think of scenarios that show a direct variation relationship. Then, make up numbers to go with the relationships and have the students practice solving them.