

Lesson 2.2 ~ Explore!

Cookies

Name _____ Period _____ Date _____

Ethan and Priscilla bought cookies at the store. Ethan bought two dozen cookies for \$6.20. Priscilla bought 5 dozen of the same cookies.

Step 1: Find the price of the cookies per dozen (the unit rate).

Step 2: Use the unit rate to determine the amount Priscilla paid for five dozen cookies.

Step 3: Write a ratio comparing the total cost of the cookies to the number of dozens purchased for Ethan. Write a similar ratio for Priscilla's purchase.

Step 4: Set the ratios equal to each other. Are the cross products equal?

Step 5: One week later, Ethan went back to the store to buy eight dozen of the same cookies. The cookies were the same price per dozen. Ethan used a proportion to determine the cost for eight dozen cookies.

Look at the proportions below.

a. Circle the proportion that could be used to find the cost of the eight dozen cookies.

$$\frac{\$6.20}{2 \text{ dozen}} = \frac{\$x}{8 \text{ dozen}} \qquad \frac{\$6.20}{2 \text{ dozen}} = \frac{8 \text{ dozen}}{\$x}$$

b. Why does the other one not work?

Step 6: Solve the proportion chosen in **Step 5a** to find the cost of eight dozen cookies.

Step 7: Use the unit rate for the cookies found in **Step 1**. Multiply the unit rate by 8. Does this match the answer to **Step 6**?

Step 8: Ethan also bought 3 pounds of apples for \$3.90. Priscilla bought 5 pounds of the same type of apples. Set up a proportion to find the price Priscilla paid for her apples. Verify the answer using unit rates.