Pre-Algebra Workbook

Ratio and proportion

krista king MATH

RATIO AND PROPORTION

■ 1. Solve for the variable.

$$\frac{6}{10} = \frac{m}{15}$$

■ 2. Solve for the variable.

$$\frac{d}{7} = \frac{14}{49}$$

■ 3. Solve for the variable.

$$\frac{5}{v} = \frac{25}{40}$$

■ 4. Solve for the variable.

$$\frac{22}{30} = \frac{33}{t}$$

■ 5. Solve for the variable.

$$\frac{8}{12} = \frac{20}{x}$$

■ 6. The reason we multiply the left and right side by the same number when we cross multiply is because, when we're solving equations, we must keep both sides _____.

UNIT PRICE

■ 1. If we can purchase 2 oranges for $\$0.20$, how many oranges can we purchase for $\$2.00$?

■ 2. If we purchase 2 oranges for $\$0.20$, how much will it cost to purchase 5 oranges?

■ 3. Sally went to the candy store and bought 40 jelly beans for $\$0.50$. How much would 60 jelly beans cost her?

■ 4. While Steven is at the grocery store, he's trying to determine which bag of popcorn is the better deal. The first bag is a 10-ounce bag of popcorn for $\$1.59$. The second bag is a 15-ounce bag of popcorn for $\$1.89$. Which bag is the better deal? Why?

■ 5. We can purchase 15 pencils for $\$4$. If we want to find the price per pencil, we would divide _____ by _____.

6. We can purchase 15 pencils for $\$4$. If we want to find the number of pencils we can buy per dollar, we would divide _____ by _____.

UNIT MULTIPLIERS

■ 1. When we're setting up a unit multiplier, the units we want to keep need to be placed in the _____ of the fraction.

■ 2. Convert 8 yards to inches.

■ 3. Convert 4 square feet to square inches.

■ 4. Convert 144 square inches to square feet.

■ 5. Convert $4{,}320$ cubic inches to cubic feet.

■ 6. Jason is converting $4{,}536$ cubic feet to cubic yards. His work is shown below. Did he solve the problem correctly? Why or why not?

$$4{,}536 \text{ cubic feet} \cdot \frac{3 \text{ feet}}{1 \text{ yard}} \cdot \frac{3 \text{ feet}}{1 \text{ yard}} \cdot \frac{3 \text{ feet}}{1 \text{ yard}} = 122{,}472 \text{ cubic yards}$$

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