Ratio and proportion

worksheet

1. A pack of 50 napkins can be purchased for $\$2.88$. Which ratio represents the cost per napkin?

$\frac{50}{2.88}$ $\qquad$ $\frac{2.88}{50}$

2. Fill in the blank. If the ratio of teachers to students at a school is 5 to 100, then for every one teacher, there are $\underline{\quad 20 \quad}$ students.

3. Solve the proportion for x.

$$\frac{3}{x} = \frac{20}{4}$$

$x = 0.6$

4. Circle the option that gives the lowest unit price per battery.

a. Buying a 6-pack of batteries for $\$5.88$.

b. Buying a 10-pack of batteries for $\$9.99$.

5. Which choice represents 5 yds^2 when converted to in^2?

180 in^2 $\qquad$ 60 in^2

20 in^2 $\qquad$ $6{,}480$ in^2

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KEY POINTS	NOTES
Ratio	A fraction that emphasizes the relationship of its numerator to its denominator. Ex: The ratio of 2 to 3 written as $\frac{2}{3}$ or $2:3$.
Proportion	Two ratios that are set equal to each other that expresses the equivalence of the two fractions. Ex: $\frac{4}{5}=\frac{32}{40}$.
Cross multiplication	A process used to solve proportions that involve a variable.
Unit price	The price per one unit. Ex: $\$2.00$ for 1 pound of ground beef.
Unit multipliers	What is used to convert one set of units to another set of units. Ex: 4 feet is 48 inches because $4 \text{ feet} \cdot \frac{12 \text{ inches}}{1 \text{ foot}} = 48 \text{ inches}$.