W ↑

Write each number as a percent. Round to the nearest tenth if necessary

- 0.24

- 3.16

- $\dfrac{4}{5}$

- $\dfrac{1}{3}$

Last Section of the Unit

Ratios, Rates, Percents, and Proportions

Find the Unit Rate

- $2 for 5 cans of dog food   *(dollars per can)*

- $428.75 for working 35 hours   *(dollars per hour)*

- 6 ounces for 2.5 servings   *(ounces per serving)*

- 12.2 gallons of gas lasted 295.24 miles   *(miles per gallon)*

- Taking 4 hours to fly 1200 miles   *(miles per hour)*

- Hiking 52 miles in 3 days   *(miles per day)*

What is the better buy?

- A store sells a box of 5 frozen yogurt bars for $1.20. The store also sells a box containing 7 of the same frozen yogurt bars for $1.59. Which option gives you a lower price per frozen yogurt bar?

Using Percents

$$\frac{is}{of} = \frac{\%}{100}$$

- What is 30% of 70 feet?

- What is 150% of $200

- Fourteen dollars is 25% of what amount of money?

- 135 is what percent of 27?

- 26 is 40% of what number?

- 48 is what percent of 160?

Definitions

- **<u>Ratio</u>**
  - Compares 2 quantities using the same unit

- **<u>Proportion</u>**
  - An equation that states that 2 ratios are equal

Solving Proportions
Steps to Follow

1. Cross Multiply

2. Simplify by combining like terms

3. Solve for the variable
   - If there is an x^2 term, then factor and solve

4. Check for extraneous answers
   - Denominator cannot be zero

Examples

$$\frac{2}{7} = \frac{5}{x}$$

$$\frac{x}{3} = \frac{5}{12}$$

Examples (cont'd)

$$\frac{x}{3} = \frac{12}{x}$$

$$\frac{10}{x} = \frac{2x}{5}$$

Examples (cont'd)

$$\frac{x+3}{4} = \frac{x}{5}$$

$$\frac{x^2-9}{x+3} = \frac{x-3}{2}$$

Classwork

- Textbook page 653
- Numbers 13-31 odds
- Numbers 33-35

- Practice Worksheet - Proportions