

Warm-Up:

Solve the proportion.

1) $\frac{4}{10} = \frac{6}{p}$ $60 = 4p$
 $15 = p$

2) A dripping water faucet wastes 3 cups of water every 24 hours. How much water is wasted in a week?

$\frac{3}{1} = \frac{x}{7}$ $3 \cdot 7 = 21 \text{ cups}$

32, 29, 38

29) $\frac{1}{6\frac{1}{4}} = \frac{\frac{2}{3}}{h}$ $\frac{1}{3} \cdot \frac{25}{42}$

$h = \frac{25}{6} \text{ ft} = 4\frac{1}{6} \text{ ft}$

32) $\frac{5}{3} = \frac{6}{x+2}$

$5x + 10 = 18$
 $-10 \quad -10$

$5x = 8$
 $\frac{5x}{5} = \frac{8}{5}$

$x = \frac{8}{5}$

38) A ratio is a comparison, a proportion is two equal ratios.

Section 2-7: Percents

A **percent of change** is any increase or decrease expressed as a percentage.

Examples:

State whether each percent of change is a percent of increase or a percent of decrease. Then find the percent of change.

1) Original: 32
New: 40

$$\frac{40 - 32}{32} = \frac{8}{32} = \frac{1}{4}$$

25% Increase

2) Original: 20
New: 4

$$\frac{20 - 4}{20} = \frac{16}{20} = .8$$

80% Decrease

Examples:

3) The price of a used book is \$5. The store sells the book for 28% above the price that it pays for the book. What is the selling price of the book?

$$5(.28) = \$1.40$$

$$5 + 1.40 = \$6.40$$

$$5(1.28) = \$6.40$$

Examples:

4) A meal for two at a restaurant costs \$32.75. If the sales tax is 5%, what is the total price of the meal?

$$32.75(.05) = 1.64$$

$$32.75 + 1.64 = 34.39$$

$$\begin{array}{r} 3.44 \\ 1.72 \\ \hline \$5.16 \end{array}$$

~	\$
~	\$
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Price	32.75
Tax	\$1.64
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Total	\$34.39

Examples:

5) A dog toy is on sale for 20% off the original price. If the original price of the toy is \$3.80, what is the discounted price?

$$3.80(.20) = \$0.76$$

$$3.80 - .76 = \text{\$}3.04$$

Homework: pg. 113 #10-36 even, 43, 44

Section 2-7 Vocab