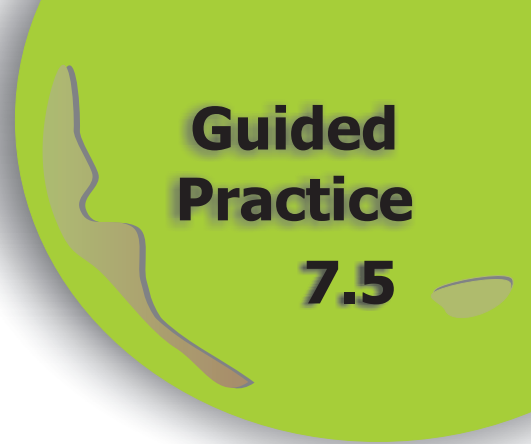


NAME _____

Module 7 Ratio, Proportion, and Percent
Lesson 5 Percent Proportions



Guided Practice

7.5

Set 1

1 Use the percent proportion to write $\frac{3}{10}$ as a percent.

$$\begin{aligned}\frac{3}{10} &= \frac{?}{100} \\ \frac{3 \times 10}{10 \times 10} &= \frac{30}{100} \\ \frac{3}{10} &= 30\%\end{aligned}$$

2 A magazine has 200 pages. The table of contents takes up three pages. What percent of the magazine's pages does the table of contents take up?

$$\begin{aligned}\frac{3}{200} &= \frac{?}{100} \\ \frac{3 \div 2}{200 \div 2} &= \frac{1.5}{100} \\ \frac{3}{200} &= 1.5\%\end{aligned}$$

The table of contents takes up 1.5% of the pages.

3 The Moon Dogs baseball team won 32 games last year. This year, they won 24 games. What percent fewer games did the team win this year?

$$32 - 24 = 8$$

$$\begin{aligned}\frac{8}{32} &= \frac{?}{100} \\ \frac{1}{4} &= \frac{?}{100} \\ \frac{1}{4} &= 25\%\end{aligned}$$

25% fewer games

Set 2

- 1 An orchard has 820 apple trees. Forty-five percent of the trees are Golden Delicious. About how many Golden Delicious trees are there?

$$45\% \text{ of } 820$$

$$50\% \text{ of } 820$$

$$\frac{1}{2} \times 820$$

$$410$$

There are about 410 Golden Delicious trees.

- 2 A restaurant can seat 275 people. Thirty-two percent of the seats are booth seats. About how many seats are booth seats?

$$32\% \text{ of } 275$$

$$32\% \text{ is about } \frac{1}{3}.$$

$$275 \text{ is about } 270.$$

$$\frac{1}{3} \text{ of } 270 \text{ is } 90.$$

About 90 seats are booth seats.

Set 3

- 1 Kelly bought a sandwich for \$5.25, a fruit salad for \$3.75, and a drink for \$4.00. There is sales tax of 5% on food. How much tax will Kelly pay? What is the total cost of the meal assuming she does not leave a tip?

$$\begin{aligned} &\textbf{Total Cost Before Tax:} \\ &\$5.25 + \$3.75 + \$4.00 = \$13.00 \end{aligned}$$

$$\begin{aligned} &\textbf{Amount of Tax:} \\ &5\% \text{ of } \$13.00 \\ &10\% \text{ is } \$1.30, \text{ so } 5\% \text{ is } \$0.65. \end{aligned}$$

$$\begin{aligned} &\textbf{Total Cost Including Tax:} \\ &\$13.00 + \$0.65 = \$13.65 \end{aligned}$$

NAME _____

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Paula bought four rolls of wallpaper for \$12.50 each. The store gave her a 25% discount because the rolls were damaged. What was the amount of the discount? How much did Paula pay for the four rolls?

Total Cost Before Discount:
 $\$12.50 \times 4 = \50.00

Amount of Discount:
25% of \$50.00
 $\frac{25}{100} = \frac{\$12.50}{50}$

Cost After Discount:
 $\$50.00 - \$12.50 = \$37.50$

