

Chapter 7 Section 1
Percent, Decimals, Fractions.

Meaning of Percent: parts per hundred.

Percent to fraction

Drop the percent sign and put the number over 100

Example:

Change 24% to a fraction

$$24\% = \frac{24}{100} \quad \text{Parts per hundred}$$

$$\frac{6}{25} \quad \text{Reduced.}$$

Example 2: Page 503

Change $14\frac{2}{7}\%$ to a fraction.

$$14\frac{2}{7}\% = \frac{14\frac{2}{7}}{100}$$

$$= \frac{\frac{100}{7}}{100} \quad \text{Mixed to improper}$$

$$\frac{100}{7} \cdot \frac{1}{100} \quad \text{Change division to multiplication}$$

$$\frac{100 \cdot 1}{7 \cdot 100} \quad \text{Reduce}$$

$$\frac{1}{7}$$

Example 3:

Change 28.4% to a fraction

$$28.4\% = \frac{28.4}{100}$$

$$= \frac{28.4 \cdot 10}{100 \cdot 10} \quad \text{Multiply numerator and denominator by 10.}$$

$$= \frac{284}{1000} \quad \text{Reduce}$$

$$= \frac{71 \cdot 4}{250 \cdot 4}$$

$$= \frac{71}{250}$$

Try: Change to a fraction

- a) 36% b) $11\frac{1}{9}\%$ c) 87.5%

Change a percent to Decimal:

Drop the percent symbol and move the decimal point two places to the left.

Example 5: page 504

Change $5\frac{1}{2}\%$ to a decimal

$$5\frac{1}{2}\% = 5.5\%$$

Change $\frac{1}{2}$ to 0.5

$$0.055$$

Drop the % symbol and move the decimal point two places to the left.

Change 24% to a decimal

$$24\% = 0.24 \quad \text{Drop the \% symbol and move the decimal point two places to the left.}$$

Try: Change to a decimal

- a) 2.4% b) $6\frac{3}{4}\%$

Change a Decimal to a Percent:

Move the decimal point two places to the right and add the percent symbol.

Example 6: page 505

Change 0.0725 to a percent

$$0.0725 = 7.25\%$$

Try: Change to a percent

- A) 0.525 b) 0.0375 1.025

Change a Fraction to a Percent

Way 1

1) Change the fraction to a decimal

2) Move the decimal point two places to the right and add a percent symbol.

Example 8: page 506

Change $\frac{5}{8}$ to a percent

$$\begin{aligned} \frac{5}{8} &= 0.625 && \text{Change the fraction to a decimal by dividing} \\ &= 62.5\% && \text{Move the decimal point two places to the right and add \% sign} \end{aligned}$$

Way 2

- 1) Write an equivalent fraction with a denominator of 100
- 2) Write the numerator and attach a percent symbol.

Change $\frac{5}{8}$ to a percent

$$\begin{aligned} \frac{5}{8} &= \frac{x}{100} && \text{Write fraction with a denominator of 100} \\ 8x &= 500 && \text{means = extremes} \\ x &= \frac{125}{2} && \text{Divide by 8 and reduce} \\ x &= 62.5 && \text{Change to a decimal} \\ \frac{5}{8} &= 62.5\% && \text{Add the percent sign.} \end{aligned}$$

Try: Change to a percent

- a) $\frac{4}{9}$ b) $\frac{5}{16}$ c) $\frac{4}{13}$ Round to the nearest tenth of a percent