

6-1 B: Percents

11-12-15

Finding the percent of a number: use the percent proportion

Percent Proportion: compares the part (is) to the whole/total value (of)

$$\begin{array}{c} \text{is} \swarrow \\ \frac{\text{part}}{\text{of} \rightarrow \text{whole}} = \frac{p}{100} \end{array}$$

Ex. 1: Find each number. Round to the nearest tenth if necessary.

A) 8% of 125

Read as: What is 8% of 125?

$$\begin{array}{c} \frac{\text{is}}{\text{of}} = \frac{p}{100} \\ \frac{x}{125} = \frac{8}{100} \\ 100x = 8 \cdot 125 \\ 100x = 1000 \\ \frac{100x}{100} = \frac{1000}{100} \\ \boxed{x = 10} \end{array}$$

B) 125% of 64

What is 125% of 64?

$$\begin{array}{c} \frac{x}{64} = \frac{125}{100} \\ 100x = 64 \cdot 125 \\ 100x = 8000 \\ \frac{100x}{100} = \frac{8000}{100} \\ \boxed{x = 80} \end{array}$$

C) $5\frac{1}{2}\%$ of 60What is $5\frac{1}{2}\%$ of 60?

$$\begin{array}{c} \frac{x}{60} = \frac{5.5}{100} \\ 100x = 60 \cdot 5.5 \\ 100x = 330 \\ \frac{100x}{100} = \frac{330}{100} \\ \boxed{x = 3.3} \end{array}$$

D) Mackenzie wants to buy a new backpack that costs \$50. If the tax rate is 6.5%, how much tax will she pay when she buys the backpack?

What is 6.5% of \$50?

$$\begin{array}{c} \frac{x}{50} = \frac{6.5}{100} \\ 100x = 50 \cdot 6.5 \\ 100x = 325 \\ \frac{100x}{100} = \frac{325}{100} \\ \boxed{x = \$3.25} \end{array}$$

HW: GM7 pg. 322 (8-32 even, 38 bonus)