

# March 6, 2015 <sup>5<sup>th</sup></sup> <sup>6<sup>th</sup></sup> Starter

Find the missing numbers.

1. What is 40% of 84?

$$\frac{n}{84} = \frac{40}{100}$$
$$\frac{100n}{100} = \frac{3360}{100}$$
$$n = 33.6$$

2. What number is 35% of 60?

$$\frac{n}{60} = \frac{35}{100}$$
$$\frac{100n}{100} = \frac{2100}{100}$$
$$n = 21$$

3. 50 is 80% of what number?

$$\frac{50}{n} = \frac{80}{100}$$
$$\frac{80n}{80} = \frac{5000}{80}$$
$$n = 62.5$$

### 3/6 Percent Increase/Decrease

"Percent Increase" means how much a number has increased **compared to the original** number.

If you made \$40 mowing lawns one week and \$48 the following week, what is the **percent increase**?

$\frac{8}{40}$  is what %?

$$\begin{array}{l} \frac{P}{40} = \frac{P}{100} \\ \frac{40P}{40} = \frac{800}{40} \\ P = 20\% \end{array}$$



If you made **\$50** one week for shoveling driveways and only **\$30** the next week since it hardly snowed, what was the **percent decrease**?

$$\begin{array}{r} 50 \\ -30 \\ \hline 20 \end{array}$$

$$\frac{20}{50} \times \frac{p}{100}$$

$$\frac{50p}{50} = \frac{2000}{50}$$

$$p = 40\% \text{ decrease}$$



Find the percent change and determine if it is an increase or decrease.

From 42 to 82

$$\frac{82}{42} - \frac{42}{42}$$

$$\frac{40}{42} \nearrow \frac{P}{100}$$

$$\frac{42P}{42} = \frac{4000}{42}$$

$$P = 95.2\% \text{ inc.}$$

$$4000 \div 42 = 95.238095$$

From 90 to 82

$$\frac{90}{82} - \frac{82}{82}$$

$$\frac{8}{90} \nearrow \frac{P}{100}$$

$$\frac{90P}{90} = \frac{800}{90}$$

$$P = 8.9\% \text{ dec.}$$

$$800 \div 90 = 8.888889$$

Find the percent change and determine if it is an increase or decrease.

From \$78 to \$84

$$\begin{array}{r} \frac{6}{78} \nearrow \nearrow P \\ \frac{78}{100} \end{array}$$
$$78p = \frac{600}{78}$$
$$p = 7.7\% \text{ inc}$$

$$600 \div 78 = 7.692308$$

From 52 hours to 13 hours

$$\frac{39}{52} \nearrow \nearrow P$$
$$\frac{52}{100}$$
$$52p = \frac{3900}{52}$$
$$p = 75\% \text{ dec}$$

$$3900 \div 52 = 75$$

# Homework

Green WS3

Due Tuesday