

March 4, 2015 ^{5th} ^{6th} 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?

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

$$\frac{80n}{80} = \frac{5000}{80}$$

$$n = 62.5$$

3/4 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**?

went up \$8

$$\begin{array}{r} \frac{8}{40} \times \frac{p}{100} \\ 40p = \frac{800}{40} \\ p = 20\% \end{array}$$



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

changed
\$20.

How much it changed

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

↑
original

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

$$P = 40\%$$



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

From 42 to 82

$$\begin{array}{r} 82 \\ -42 \\ \hline 40 \end{array}$$

$$\frac{40}{42} = \frac{p}{100}$$

$$42p = 4000$$

$$p = \frac{4000}{42} = 95.2\% \text{ increase}$$

$$4000 \div 42 = 95.238095$$

From 90 to 82

$$\begin{array}{r} 90 \\ -82 \\ \hline 8 \end{array}$$

$$\frac{8}{90} = \frac{p}{100}$$

$$\frac{800}{90} = \frac{p}{100}$$

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

$$800 \div 90 = 8.888889$$

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

From \$78 to \$84

$$\frac{6}{78} \times \frac{P}{100}$$

$$\frac{78p}{78} = \frac{600}{78}$$

$$p = 7.7\% \text{ inc}$$

$$600 \div 78 = 7.692308$$

$$\begin{array}{r} 84 \\ -78 \\ \hline 6 \end{array}$$

From 52 hours to 13 hours

$$\frac{39}{52} = \frac{P}{100}$$

$$\frac{52p}{52} = \frac{3900}{52}$$

$$p = 75\% \text{ dec}$$

$$3900 \div 52 = 75$$

Homework

Green WS 3

Due Tuesday