

To find Percent Increase or Percent Decrease, follow these three steps:

| | | |
|---|---|--|
| <p>1) $\frac{\text{change}}{\text{original}}$ (Subtract to find <i>change</i>, or it may be given.) (Reduce if it's easy.)</p> | <p>2) Change to decimal. (Use long division.)</p> | <p>3) Change to percent. (Move decimal 2 spaces towards the percent sign.)</p> |
|---|---|--|

Lexi insisted that her hours at work be cut from 30 per week to 18 per week, so she could focus more on her schoolwork. What is the percent decrease in her hours?

$$\begin{array}{r} 23'0 \\ -18 \\ \hline 12 \end{array}$$

~~change~~

$$\frac{12}{30} = \frac{2}{5}$$

$$5 \overline{) 2.0} = 0.4$$

$$0.4 = 40\%$$

40% decrease

$$\frac{\text{change}}{\text{original}}$$

1)

(Subtract to find change, or it may be given.)

(Reduce if it's easy.)

2) Change to decimal.

(Use long division.)

3) Change to percent.

(Move decimal 2 spaces towards the percent sign.)

In 2012 there were 121,400 jobs for Physical Therapist Assistants and Aids in the U.S. (average salary \$52,160) It is projected that there will be 170,800 jobs by 2022. What is the percent increase in the number of these jobs? Round to the

nearest percent.

$$\begin{array}{r}
 167'0800 \quad \text{change} \\
 - 121400 \\
 \hline
 49,400
 \end{array}$$

$$\begin{array}{r}
 49,400 \\
 \hline
 121,400
 \end{array}$$

$$\begin{array}{r}
 40 \square \\
 1214 \overline{) 4856.000} \\
 \underline{-4856} \\
 000
 \end{array}$$

This digit will be 5 or greater, so round up from .40 to .41.
41%

$$\begin{array}{r}
 1214 \\
 \times 4 \\
 \hline
 4856
 \end{array}$$

41% increase

$$\frac{\text{change}}{\text{original}}$$

1)

(Subtract to find *change*,
or it may be given.)

(Reduce if it's easy.)

2) Change to decimal.

(Use long division.)

3) Change to percent.

(Move decimal 2 spaces
towards the percent sign.)

Once you drive a brand new \$30,000 car off the lot, its value drops by \$3339. What is the percent decrease in the car's value?

$$\boxed{3339} \leftarrow \text{Change}$$

$$\frac{3339}{30000}$$

$$\begin{array}{r} 30000 \overline{) 33339.0000} \\ \underline{-30000} \\ 3339 \\ \underline{30000} \\ 39000 \\ \underline{-30000} \\ 90000 \\ \underline{-90000} \\ 0 \end{array}$$

11.13%

11.13% decrease