

Percent of Increase/Decrease

We were able to solve 3 different type problems using the Percent Proportion. We solved for the part, total, and percent by using what we learned in ratios and proportions earlier.

Another popular type of problem is percent of increase or decrease. While they can be solved using the Percent Proportion, some like to look at them as distinct problem types.

The good news is everything we have learned still applies. We are just going to look at the problems a little differently. Up to this point, using our knowledge of ratios and proportions, the ratio on the right side of the equal sign was the same as the ratio on the left side.

$$\text{That is } \frac{\text{part}}{\text{total}} = \frac{\text{part}}{\text{total}} \rightarrow \frac{\text{part}}{\text{total}} = \frac{\%}{100}$$

Now we will make a minor adjustment. Rather than having the part as the numerator, we will change that to the *amount changed*. The denominator will be the *original amount*.

$$\frac{\text{amount changed}}{\text{original amount}} = \frac{\%}{100}$$