A **ratio** is a relationship between two numbers that stays constant.

If there are 15 students and 3 computers in a classroom, the ratio of students to computers is 15:3, and is expressed in lowest terms, 5:1.

Ratios can be written in different forms as shown below.

* Like it is said = 5 to 1
* Like an analogy or comparison = 5:1
* Like a fraction = $\frac{5}{1}$

**Rates** are a special form of a ratio. It is a comparison of numbers that have different units.

Gary went on a trip last weekend to Dallas and traveled 165 miles. It took him 3 hours to get there.

The rate described is miles to hours which is one of the most commonly used rates. I have the rate of 165 miles to 3 hours. It could be written in several forms, or simplified into the lowest rate with a denominator of 1 (called a unit rate). I could divide both measurements by 3 and get 55 miles: 1 hour; 55 miles/1 hour or 55 mph.