Module 3: Proportional Relationships

Constant- A value that does not change

Constant of proportionality- A constant ratio of two variables related proportionally

Equivalent ratios - Ratios that name the same comparison. $\frac{3}{4} = \frac{6}{8}$

Proportion- An equation that states that two ratios are equivalent $\frac{3}{x} = \frac{6}{8}$

Proportional relationship- A relationship between two quantities in which the ratio of one quantity to the other quantity is constant.

Rate- A ratio that compares two quantities measured in different units..

Rate of change- A ratio of the amount of change in the dependent variable, or output, to the amount of change in the independent variable, or input. $\frac{\Delta y}{\Delta x}$ $\frac{y_2 - y_1}{x_2 - x_1}$

Ratios - A comparison of two quantities by division 1:2 $\frac{1}{2}$ 2/1

Slope- A measure of the steepness of a line on a graph; the rise divided by the run. Slope = m

rise/run ↕/→

Unit Rate- A rate in which the second quantity in the comparison is one unit.

Module 4: Nonproportional Relationships

Ordered Pair- A pair of numbers that can be used to locate a point on a coordinate plane. (x, y)

x-coordinate-The first number in an ordered pair; it tells the distance to move right or left from the origin, (0, 0). (x, y)

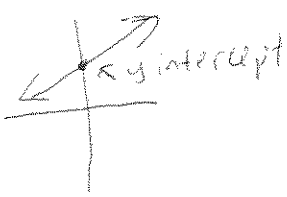
y-coordinate- The second number in an ordered pair; it tells the distance to move up or down from the origin, (0, 0).

Linear equation– An equation whose solutions form a straight line on a coordinate plane.

Slope-intercept form of an equation- A linear equation written in the form y = mx + b, m represents slope and b represents the y-intercept

m = slope
b = y-intercept

y-intercept– The y-coordinate of the point where the graph of a line crosses the y-axis.



(0, y) your x value for the y intercept in the ordered pair is always 0