

Module 4 Linear Equations

Coefficient - A numerical or constant quantity placed before and multiplying the variable in an algebraic expression (e.g., 4 in $4x$ y).

Equation - An *equation* is a statement of equality between two expressions.

Slope - *Slope* is a number that describes the “steepness” or “slant” of a line. It is the constant rate of change.

Solution to a System of equations - The *solution to a system of linear equations* is a pair of numbers from the domain of the variables that, when each number from the pair is substituted into all instances of its corresponding variable, makes the equation a true number sentence. Example: The solution to the system of linear equations $\begin{cases} x + y = 15 \\ 3x - 7y = -2 \end{cases}$ is the ordered pair $\left(\frac{103}{10}, \frac{47}{10}\right)$ because the ordered pair is a solution to each linear equation of the system, and it is the point on the plane where the graphs of the two equations intersect.

x-intercept - The x-intercept of a line is the point at which the line crosses the x-axis.

y-intercept - The y-intercept of a line is the point at which the line crosses the y-axis.