1. Convert slope-intercept to standard form and convert standard form into slope-intercept form.

* Slope-intercept form
* Standard form: , ( are not fractions and the coefficient must be positive)

1. Find the **x- y intercepts**. Interpret the meaning of the x-y intercepts. Graph the line using x-y-intercepts

* x-intercept: and solve for
* y-intercept: let and solve for or if equation is in convert to by isolating for

1. Graph and write the equation of a line (diagonal, horizontal and vertical).

* Diagonal Line:
* Vertical Line:
* Horizontal Line:

1. Determine whether **two lines are parallel, perpendicular** or neither.

* Two lines are **parallel** if their slopes are the same.
* Two lines are **perpendicular** if their slopes are negative reciprocals and their product is -1.

1. **Graph a line** using:
   1. a point and slope.

* Plot point first then use to find two more points on the line
  1. Table of values (t-chart)
* Choose values of and substitute into equation and solve for

1. Find the **equation** **of a line** given:
   1. Graph
   2. Slope and y-intercept
   3. Slope and a point

* Substitute values of into and solve for .
* Write final equation using and .
  1. Two points
* Find the slope using .
* Use the slope and one of the points and substitute into and solve for .
* Write final equation using and .
  1. Parallel or perpendicular to a line passing through a point.
* State slope of equation given. If line is parallel then use the same slope.
* If line is , then use negative reciprocal.
* Use the slope and one of the points and substitute into and solve for.
* Write final equation using and

1. Find the **POI** of a linear system by graphing. Interpret the POI. Explain the conditions in which one linear relation would be used over another linear relation.

* Graph each line using any method.
* Determine point where lines cross.
* To check POI algebraically, substitute value of x-coordinate into equation. If y-coordinate is the same as the POI, then point is on the line (point satisfies the equation).