Linear Functions and Graphing—Pre-Test

1. Define the following terms in your own words:

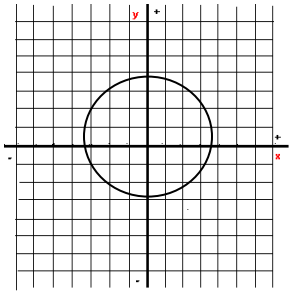
   a. Linear function A relation in which each first component in the ordered pairs corresponds to exactly one second component.
   b. Domain The set of all first components of the ordered pairs in a given relation.
   c. Range The set of all second components of the ordered pairs in a given relation.
   d. Function notation A notation used to represent a function where *f(x)* is used to replace the *y* values in an equation.

2. Determine if the following relations are functions by using the method most appropriate: domain and range, vertical line test, or plotting points.

   a. $x - y = 5$ Function

   b. $\{(2,3),(-3,4),(8,11),(4,3)\}$ Function

   c. Not a Function

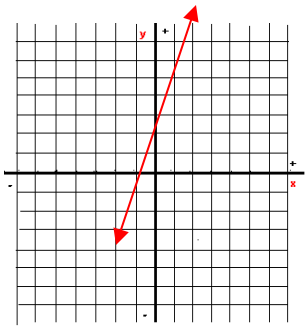
   

   d. $x = 2y^2$ Not a Function

3. Graph the following functions using the method described.

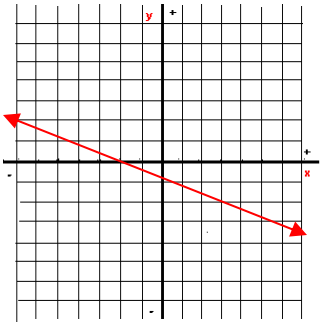
   a. Use ordered pairs to graph the following function.

   $f(x) = 3x + 2$

   b. Write the following equation in function notation and then find the *x*-intercept and *y*-intercept to graph the function.

   $x + 3y = -3$

   Function: YES

Linear Functions and Graphing—Post-Test

1. Define the following terms in your own words:

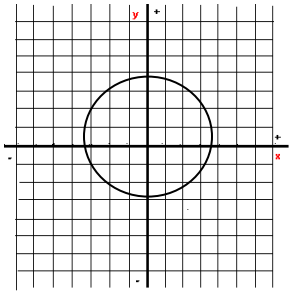
   a. Linear function A relation in which each first component in the ordered pairs corresponds to exactly one second component.
   b. Domain The set of all first components of the ordered pairs in a given relation.
   c. Range The set of all second components of the ordered pairs in a given relation.
   d. Function notation A notation used to represent a function where *f(x)* is used to replace the *y* values in an equation.

2. Determine if the following relations are functions by using the method most appropriate: domain and range, vertical line test, or plotting points.

   a. $2x - y = 3$ Function

   b. $\{(4,-1),(5,-2),(7,13),(-2,-1)\}$ Function

   c. Not a Function

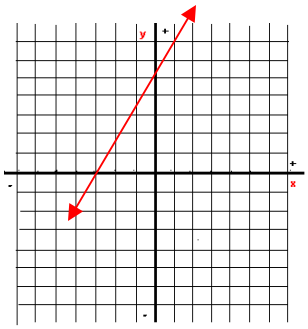
   

   d. $x = 3y^2$ Not a Function

3. Graph the following functions using the method described.

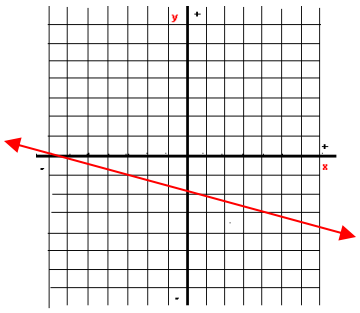
   a. Use ordered pairs to graph the following function.

   $f(x) = 2x + 5$

   b. Write the following equation in function notation and then find the *x*-intercept and *y*-intercept to graph the function.

   $x + 4y = -8$

   Function: _____YES_____