**Chapter 6 Skills Summary – Linear Functions**

**1. Skill: Determine the slope of a line and identify parallel and perpendicular lines.**

Strategy: use the slope formula, or slope=, if the slopes are equal then the lines are parallel; if the slopes are negative reciprocals then the lines are perpendicular.

Examples

For the two slopes given, are the lines parallel, perpendicular or neither?

a) 4, 4 b), 6 c)

**2. Skill: Write the equation of a line in slope-intercept form. Graph.**

Strategy: the equation of a line is, where the slope is and the -intercept is 

Example: Write the equation for the graph in slope-intercept form.

Example 2: Graph the lines: a) y = 2x + 1 b) y = - ½ x



* 1. **Skill: Write the equation of a line in slope-point form. Graph.**

Strategy: A line with slope,, and passing through , has equation:

Examples

a. Write the equation of the line that has slope of -5 and passes through P(-4,2) in slope-point form.

b. Write the equation of the line that passes through J(-7,-1) and K(-5, -5)

* 1. Graph the equation y – 3 = 2(x + 5)



**Skill: Graph a linear relation in general form**

Strategy: The general form of the equation is: 

Find the x and y intercepts and then graph the intercepts and draw a line through the points.

Example: 1. Graph the equation 

Example 2. Write each equation in general form.

 

Pg. 460 Ques 17-24