3.5 Linear Equations- Equations of Lines

3 Forms of Linear Equations. . .

Slope Intercept Form: y = mx + b

Point Slope Form: y – y = m ( x – x )

Standard Form: Ax + By = C

Write a linear equation

Given.. .

**Slope and y-int**., use slope intercept form

**Slope and a point**, use point slope form and then convert to slope intercept form

**2 points**, first find the slope, use point slope form and then convert to slope intercept form

Vertical Lines will be in the form x=C

Horizontal Lines will be in the form y=C

Practice Problems:

Write the equation of each line given the following information.

1. Slope is 2/7 and x-intercept is 6.
2. Line that is parallel to y=1/3x+5 and goes through (6, -1)
3. Line that is perpendicular to y=-2x+1 and goes through (2, 3)
4. Line that perpendicular to x=4 and goes through (-1, 5)