Formulas:

Standard from: $Ax + By = C$ 　　　　　　　　Point –Slope: $y - y_1 = m(x - x_1)$

Slope- Intercept: $y = mx + b$ 　　　　　　　　Slope: $m = \dfrac{y_2 - y_1}{x_2 - x_1}$

Sketch each of the following equations on the graph below. Each line should include at least two points and have arrows on each end. Label each line with its problem number.

1) $y = \dfrac{7}{5}x - 4$

2) $y = -\dfrac{5}{2}x$
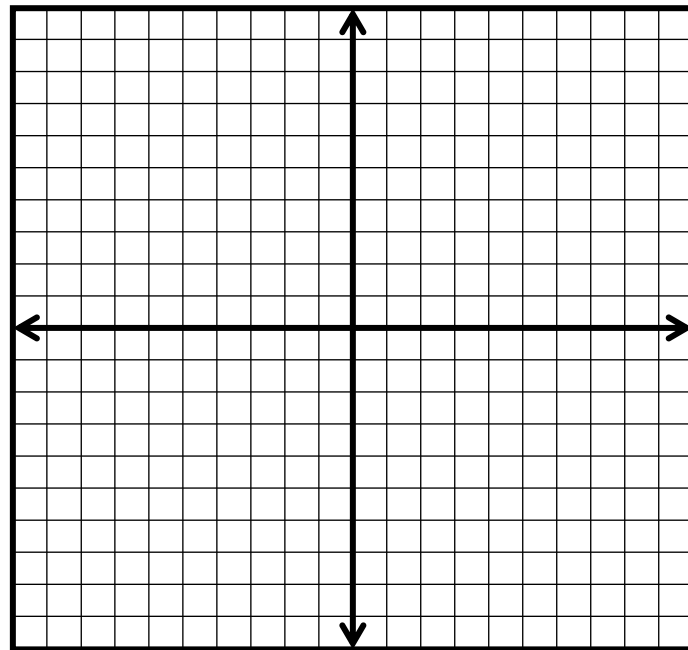
3) $y = 2$

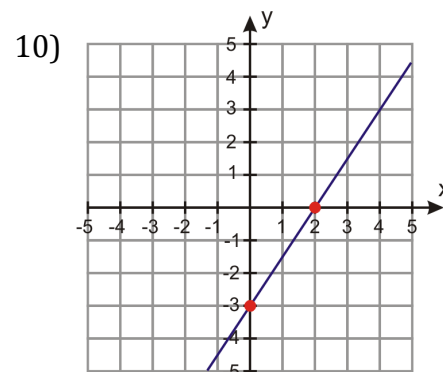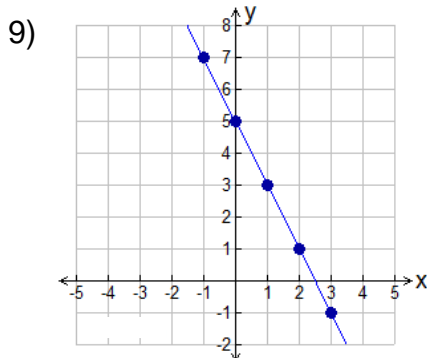4) $x = -7$

5) $2x + 3y = 9$

6) $x - y = 5$

7) $y - 2 = 3(x - 1)$

8) $y + 1 = -\dfrac{1}{2}(x + 4)$

Write the equation of each line in a) point slope form, b) slope-intercept and c) standard form.

9)

10)

Write the equation of each line described in a) point slope form, b) slope-intercept and c) standard form.

11) contains $(3, -5)$ with slope of $\frac{-7}{3}$

12) contains $(-4, 3)$ parallel to $y = -\frac{5}{4}x + 1$

13) passes through $(1, 0)$ perpendicular to $y = -3x - 7$

14) contains $(0, -2)$ and $(-3, -5)$

15) passes through $(1, -1)$ and $(5, 2)$

16) slope is undefined and passes through $(8, -4)$