1. a) Write the slope and the coordinates of a point on the line $y - 4 = \frac{1}{2}(x + 2)$.

$y_1 =$ _____ , $m =$ _____ , and $x_1 =$ _____

So, the slope is _____ , and the coordinates of a point are _____ .

b) Graph the line.

Plot the point P_____ .

The slope is _____ .
So, the rise is _____ and the run is _____ .
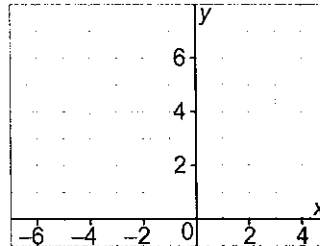
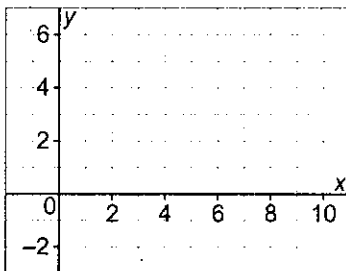**2.** A line passes through F(−1, 8) and has slope −3. Write an equation for the line.

Use the slope-point form of the equation: _____

An equation is: _____

3. a) Graph the line that passes through U(2, −1), and has slope $\frac{5}{3}$.

b) Write an equation for the line in part a.

An equation is: _____

4. Write this equation in slope-intercept form: $y + 5 = -4(x - 3)$

$y + 5 = -4(x - 3)$	Expand.
$y + 5 =$ _____	Solve for y.
$y =$ _____	
$y =$ _____	

The equation is: _____

5. A line passes through P(−3, 4) and Q(3, −6). Write an equation for the line.

Use the formula: Slope $= \dfrac{y_2 - y_1}{x_2 - x_1}$

Slope of PQ = _____

In slope-point form, an equation is: _____

6. An equation of a line is $y = -\dfrac{3}{8}x + 4$.

a) Write an equation for the line that passes through R(1, −3) and is perpendicular to $y = -\dfrac{3}{8}x + 4$.

The slope of the line is _____.

The slope of a perpendicular line is _____.

An equation of the line is: _____

b) Write an equation for the line that passes through R(1, −3) and is parallel to $y = -\dfrac{3}{8}x + 4$.

An equation of the line is: _____