ALEKS® Section 3.3 Line Forms #3

Intermediate Algebra / Copy of MAT 135 Spring 2014 (Prof. Porter)

Student Name/ID:

1. Write an equation in slope-intercept form for the line with slope 2 and y-intercept -6 .

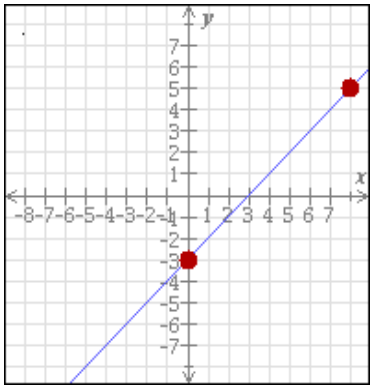
2. A line passes through the point $(-4, -6)$ and has a slope of $\frac{5}{2}$.

Write an equation in slope-intercept form for this line.

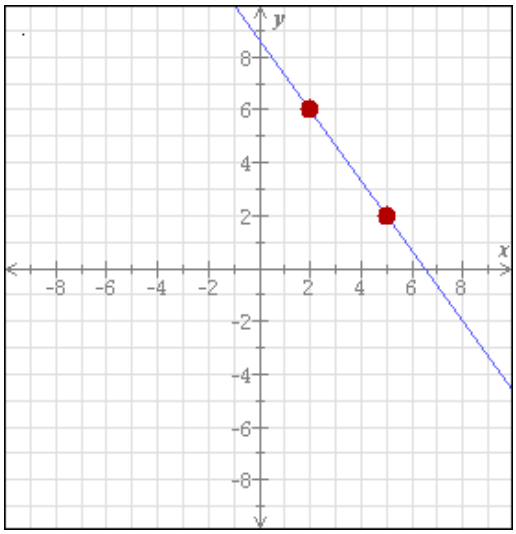
3. A line passes through the point $(-10, 6)$ and has a slope of $-\frac{5}{2}$.

Write an equation in point-slope form for this line.

4. Write an equation of the line below.



5. Find an equation for the line below.



6. Write equations for the horizontal and vertical lines passing through the point $(-7, 3)$.

horizontal line:

vertical line:

7. Consider the line $y = 2x - 6$.

What is the slope of a line parallel to this line?

What is the slope of a line perpendicular to this line?

8. Consider the line $-5x - 7y = 4$.

What is the slope of a line perpendicular to this line?

What is the slope of a line parallel to this line?

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9. The equations of three lines are given below.

Line 1: $10x-4y=6$

Line 2: $y=-\frac{2}{5}x+1$

Line 3: $-2y=5x+6$

For each pair of lines, determine whether they are parallel, perpendicular, or neither.

10. Consider the line $y=-3x+8$.

(a) Find the equation of the line that is parallel to this line and passes through the point $(-5,-3)$.

(b) Find the equation of the line that is perpendicular to this line and passes through the point $(-5,-3)$.

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