ALEKS® Lines and Functions Quiz 1 #1

Beginning and Intermediate Algebra Combined / MATH 101 - Fall 2014 – 504 (Prof. Miller)

Student Name/ID:

Instructor Note:
Directions: Every problem is worth two points. One point is for trying the problem and showing your work and one point is for getting the correct answer. There are an additional five points for demonstrating the study strategy that is posted on the board and talked about at the beginning of class.

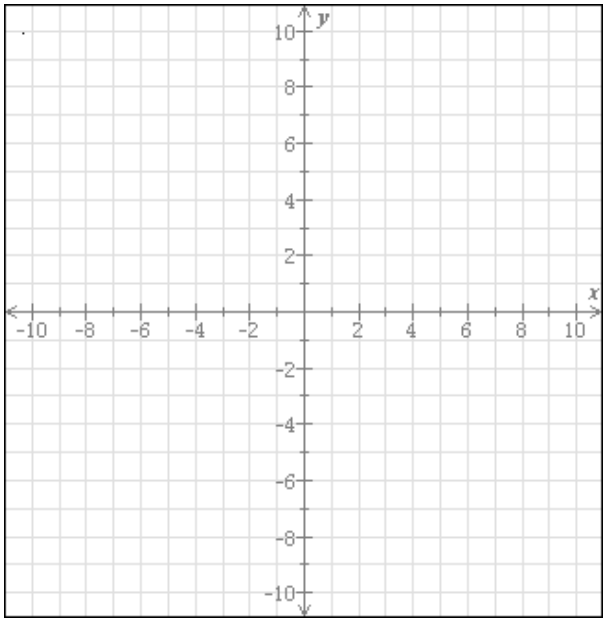
1. The equation of a line is given below.

$$-3x-5y=-15$$

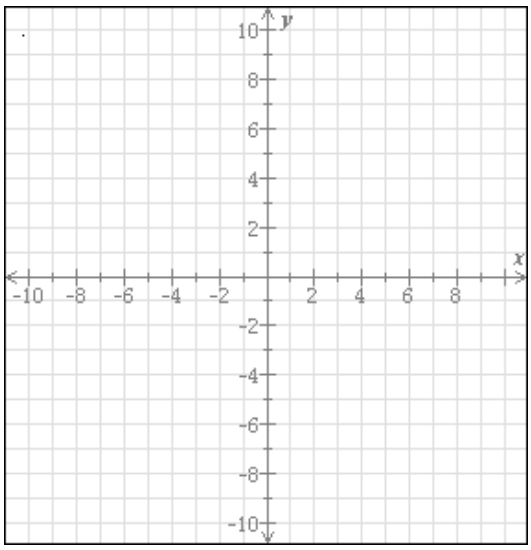
Find the slope and the y-intercept.
Then use them to graph the line.

slope: _____

y-intercept: _____



2. Graph the line whose y-intercept is -9 and whose x-intercept is -2



3. Find the x-intercept and y-intercept of the line.

$$6x - 8y = -15$$

x-intercept: _____

y-intercept: _____

4. Consider the line $y = -\frac{5}{2}x - 6$

(a) Find the equation of the line that is perpendicular to this line and passes through the point $(-8, 6)$

(b) Find the equation of the line that is parallel to this line and passes through the point $(-8, 6)$

5. Find the slope of the line passing through the points $(-9, -6)$ and $(-4, 5)$

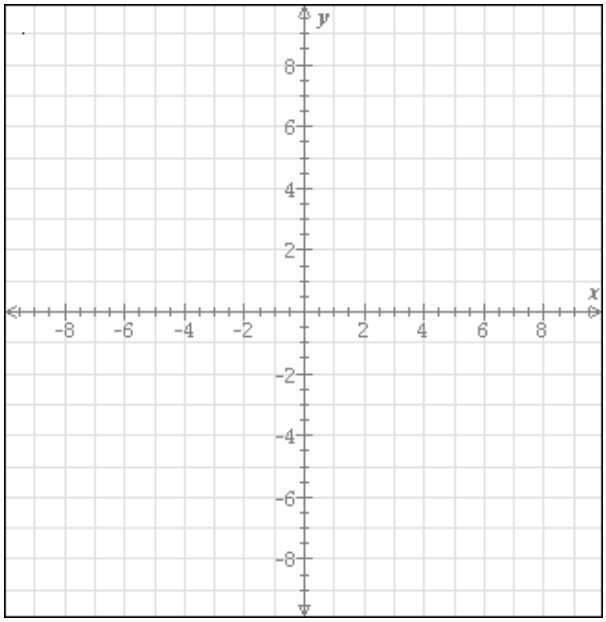
6. The equation of a line is given below.

$$2x+4y=-8$$

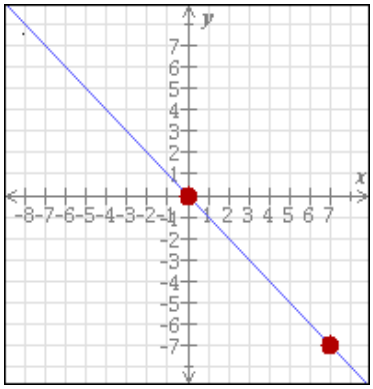
Find the x-intercept and the y-intercept.
Then use them to graph the line.

x-intercept: _____

y-intercept: _____



7. Write an equation of the line below.



8. A line passes through the point $(-4, -1)$ and has a slope of $-\frac{5}{2}$

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

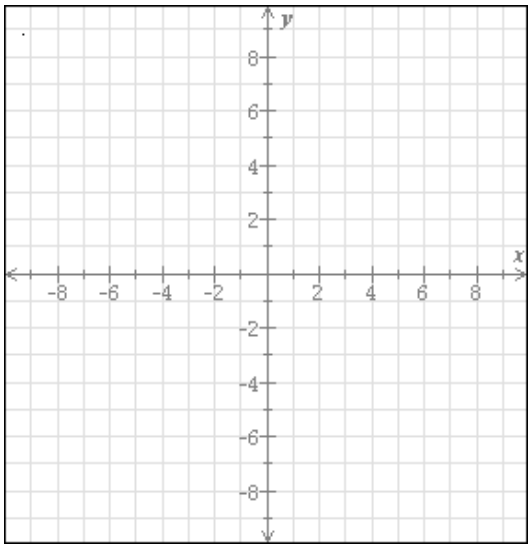
9. Find the slope and the y-intercept of the line.

$$-3x-4y=-20$$

Write your answers in simplest form.

10. Graph the line.

$$-3x+y=-6$$



11. Find an ordered pair (x, y) that is a solution to the equation.

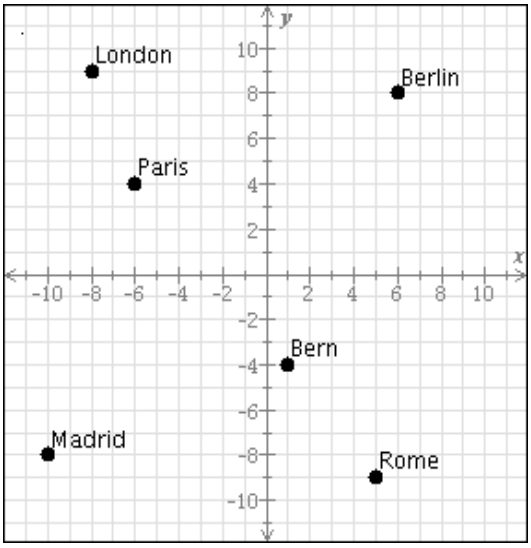
$$2x-y=3$$

12. Consider the line $-9x-6y=-4$

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

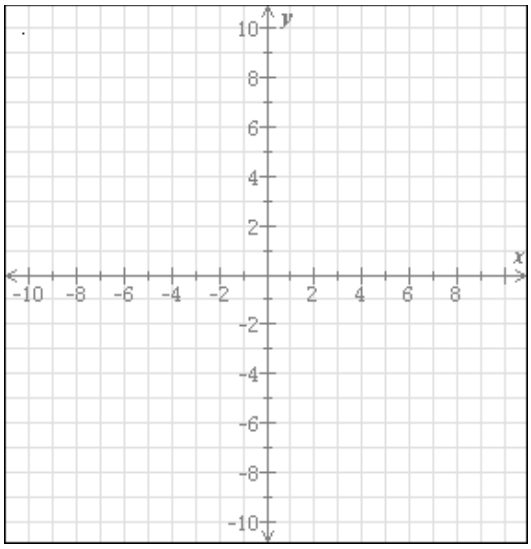
What is the slope of a line parallel to this line?

13. Give the location of Rome as an ordered pair (x,y)

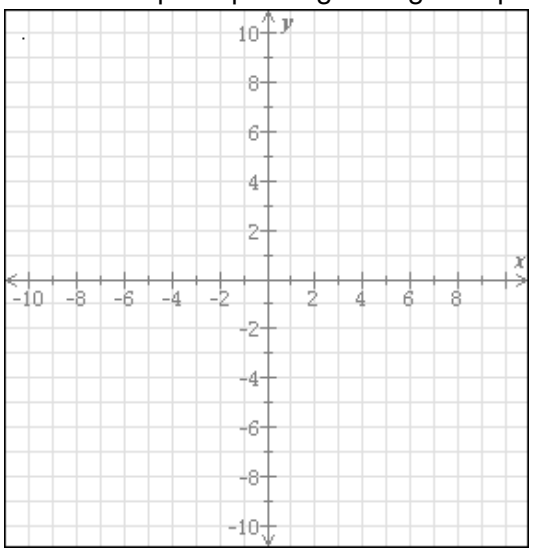


14. Graph the line.

$$y=-\frac{1}{4}x+1$$



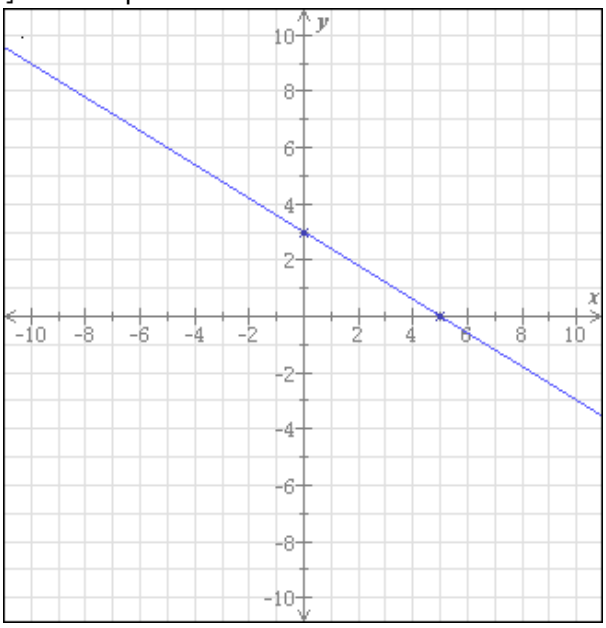
15. Graph the line with slope 3 passing through the point $(2,-1)$



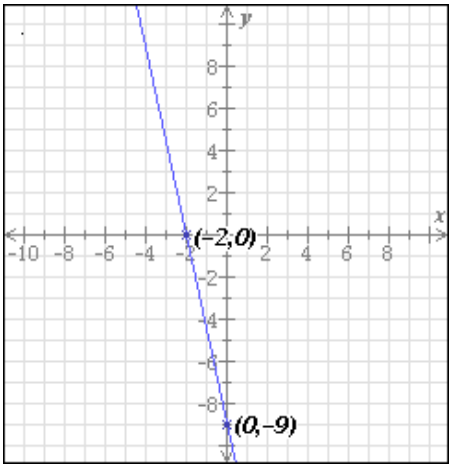
Lines and Functions Quiz 1 #1 Answers for class Beginning and Intermediate Algebra Combined / MATH 101 - Fall 2014 – 504

1. slope: $-\frac{3}{5}$

y-intercept: 3



2.



3. x-intercept: $-\frac{5}{2}$

y-intercept: $\frac{15}{8}$

4.

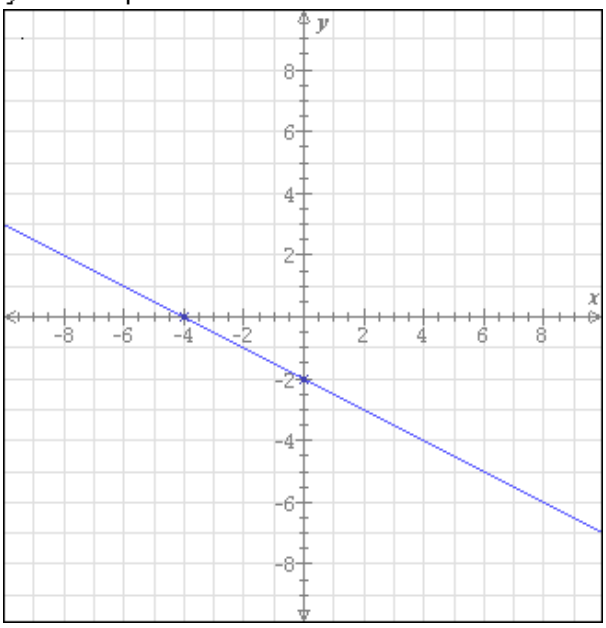
Equation of perpendicular line: $y=\frac{2}{5}x+\frac{46}{5}$

Equation of parallel line: $y=-\frac{5}{2}x-14$

5. $\frac{11}{5}$

6. x-intercept: -4

y-intercept: -2



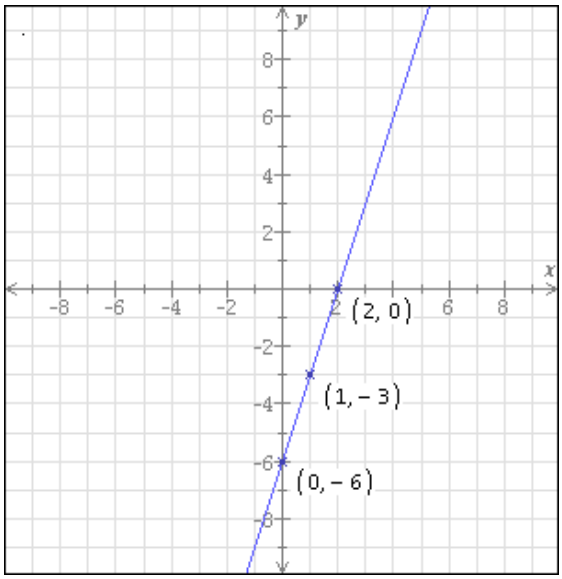
7. $y=-x$

8. $y=-\frac{5}{2}x-11$

9. slope: $-\frac{3}{4}$

y-intercept: 5

10.



11. One possible answer is $(x, y) = (0, -3)$

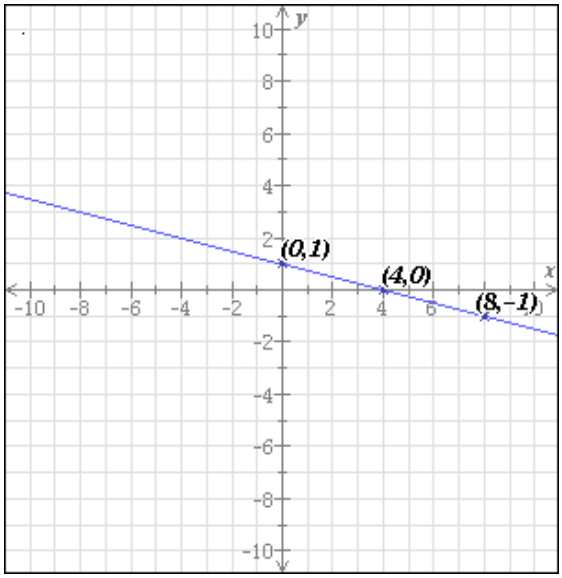
12.

Slope of a perpendicular line: $\frac{2}{3}$

Slope of a parallel line: $-\frac{3}{2}$

13. $(x,y) = (5,-9)$

14.



15.