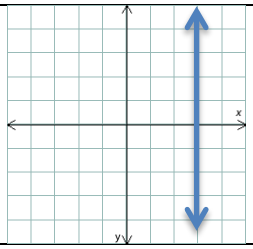
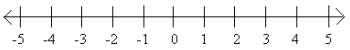
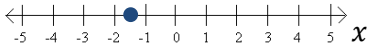
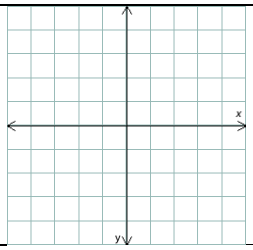
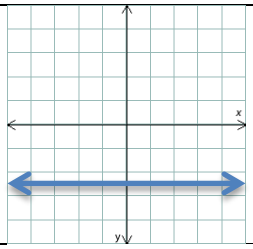
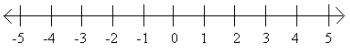
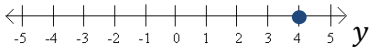
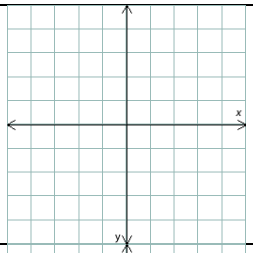
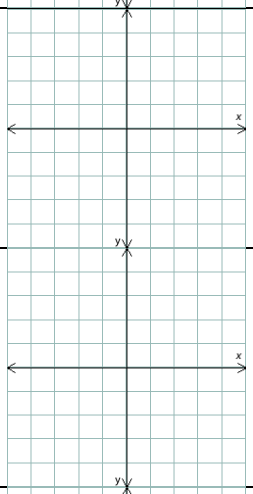
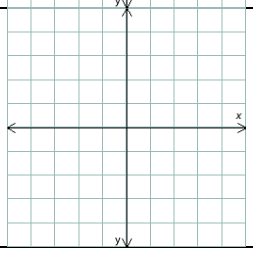
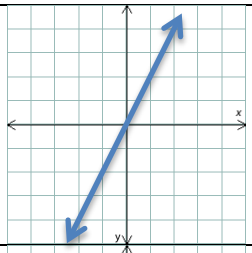
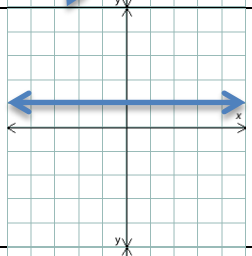
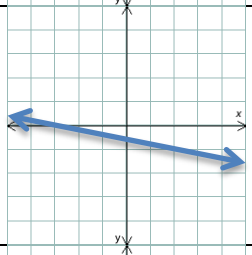
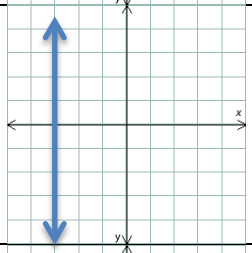
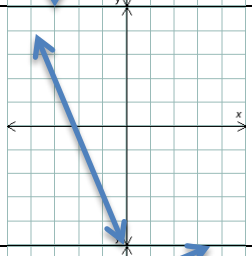
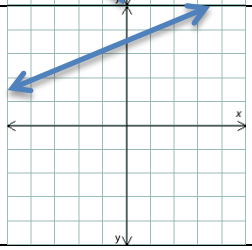
Project 9: Graphing

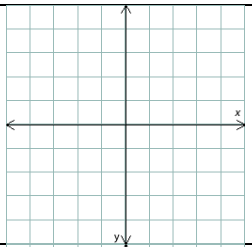
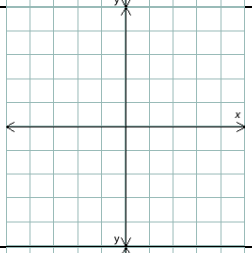
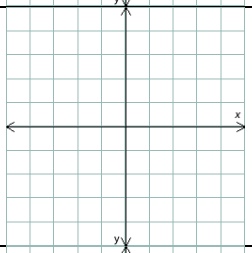
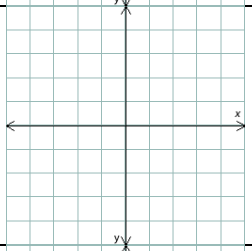
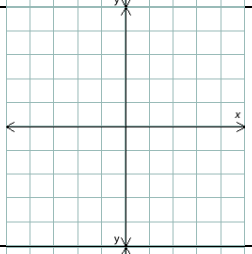
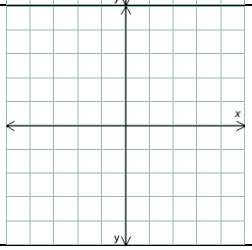
For each given set of information, provide the other version of the graph and the equation of the line:

	Given graph or point:	Draw the other version of the graph:	Write the equation of the line:
1)			
2)			
3)			
4)			
5)	Graph the point $(-2,-3)$. Consider the **vertical** line that passes through this point:		
6)	Graph the point $(-2,-3)$. Consider the **horizontal** line that passes through this point:		
7)	Graph the point $(4,-1)$. Consider the **horizontal** line that passes through this point:		
8)	Graph the point $(4,-1)$. Consider the **vertical** line that passes through this point:		

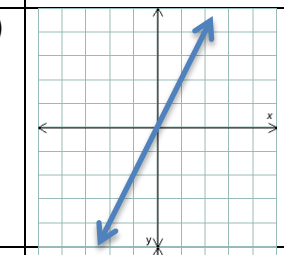
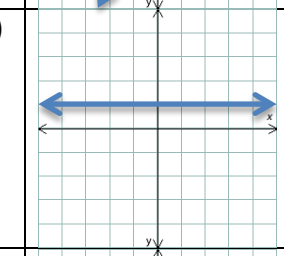
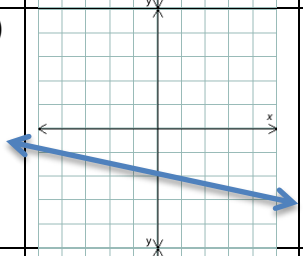
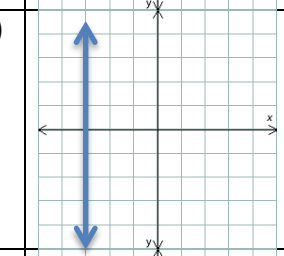
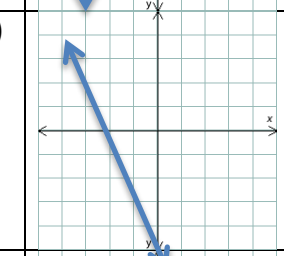
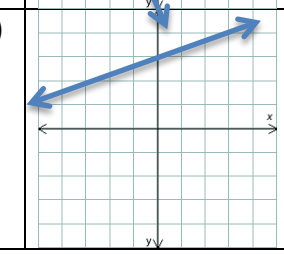
For each of the following lines, describe the slope:

	Graph	Slope positive or negative (or zero, or undefined)?	Slope has magnitude less than one or greater than one?	Pick two points on the line:	Calculate the slope from these two points by counting:
9)					
10)					
11)					
12)					
13)					
14)					

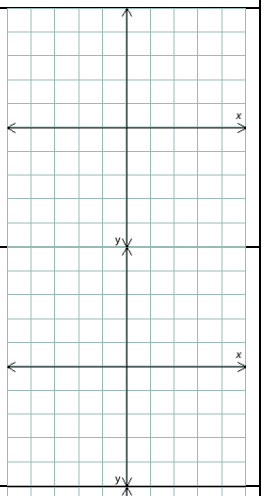
For each of the following pairs of points, first graph the two points, then use the two points to determine information about the slope and the y-intercept, and finally write the equation of the line:

	Points:	Graph the two points:	Slope positive or negative (or zero, or undefined)?	Slope has magnitude less than one or greater than one?	Pick two points on the line:	Calculate the slope from these two points:	Identify the *y*-intercept:	Write the equation for the line in slope-intercept form:
15)	$(-1,2)$, $(-1,-4)$							
16)	$(-2,3)$, $(-3,-1)$							
17)	$(-4,2)$, $(-1,4)$							
18)	$(2,3)$, $(-2,5)$							
19)	$(2,3)$, $(-1,3)$							
20)	$(2,1)$, $(1,4)$							

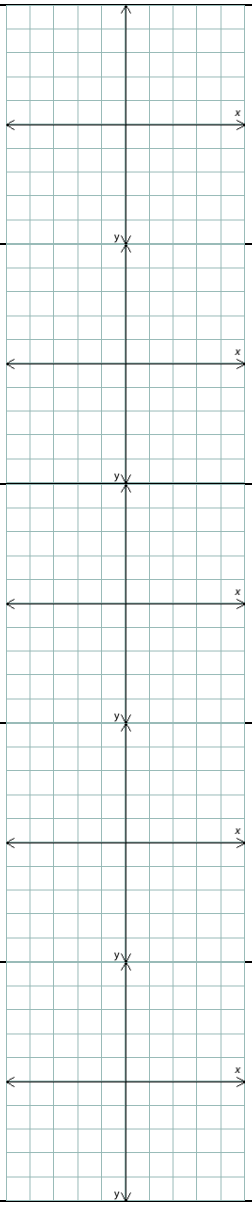
For each of the following graphs, identify the slope and the intercept, then write the equation in slope-intercept form:

	Graph	Slope positive or negative (or zero, or undefined)?	Slope has magnitude less than one or greater than one?	Pick two points on the line:	Calculate the slope from these two points:	Identify the *y*-intercept:	Write the equation for the line in slope-intercept form:
21)							
22)							
23)							
24)							
25)							
26)							

For each of the following graphs, identify the slope and the intercept, and then graph the line:

27)	Equation of the line:	Slope positive or negative (or zero, or undefined)?	Slope has magnitude less than one or greater than one?	Slope:	*y*-intercept:	Graph
28)	$y = -2x + 1$					
29)	$y = 3$					
30)	$y = \frac{1}{3}x - 3$					
31)	$y = 2x - \frac{1}{2}$					
32)	$y = -\frac{2}{3}x + 2$					
33)	$x = -2$					

For each of the following graphs, identify the two intercepts, and then graph the line, and then use that graph to find the slope:

34)	Equation of the line:	*x*-intercept:	*y*-intercept:	Graph	Slope positive or negative (or zero, or undefined)?	Slope has magnitude less than one or greater than one?	Slope:
35)	$5x - 2y = 10$						
36)	$-2x + 3y = -6$						
37)	$4x + 3y = -12$						
38)	$2x + 7y = 14$						
39)	$-3x + 5y = 15$						