

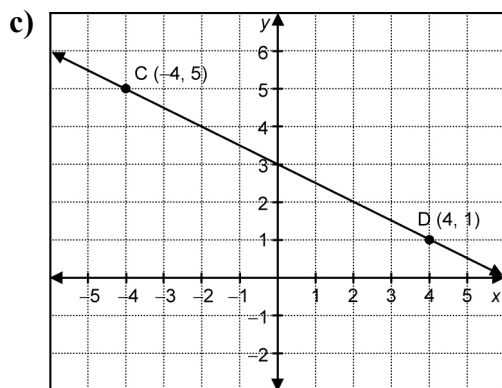
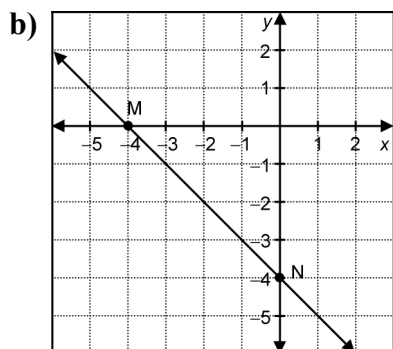
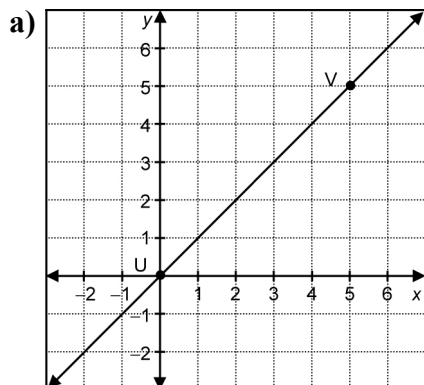
Name: _____

Date: _____

BLM 3.4.1

Practice: Determine the Equation of a Line

1. For each graph, determine the slope and y -intercept, then write the equation of the line in the form $y = mx + b$.



2. Write the equation for each line given the slope and y -intercept.
- slope: -1 , y -intercept: 2
 - slope: 0.5 , y -intercept: 0
 - slope: 3 , y -intercept: -3
 - slope: -0.75 , y -intercept: 0

3. Find the missing values in each table.

a)

x	y
0	
1	-5
2	-10
3	
4	-20

b)

x	y
0	
1	-10
2	-8
3	
4	-4

c)

x	y
0	
1	2
2	
3	2
4	

4. Peter is saving money for college. His parents gave him \$500, and he plans to save \$75 each week.
- Determine the equation of the line that would represent the amount saved, y , after x weeks.
 - How much money does Peter have in his savings after 12 weeks?
 - How many weeks would it take Peter to have \$8000?
5. Determine the equation of the line given the slope and the coordinates of one point on the line.
- $m = 3$, $M(0, 5)$
 - $m = -2$, $N(4, -2)$
 - $m = 4$, $G(2, 1)$
 - $m = -1$, $H(3, 0)$
6. Write an equation for the line passing through each pair of points.
- $A(1, 2)$, $B(-10, -9)$
 - $C(0, 3)$, $D(-6, -9)$
 - $E(-4, -6)$, $F(5, 3)$
 - $G(-1, -7)$, $H(3, 9)$

7. On grid paper, plot the coordinates for each point and join them with a straight line. Write an equation for the line in the form of $y = mx + b$.
- $A(-7, 2)$, $B(0, 9)$
 - $A(12, 6)$, $B(-4, -2)$
 - $A(1, 0)$, $B(0, -3)$