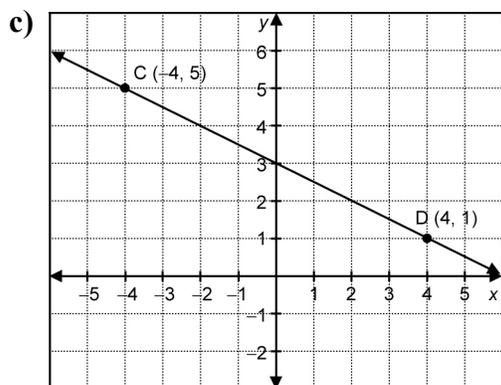
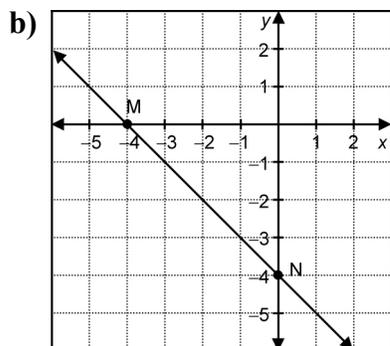
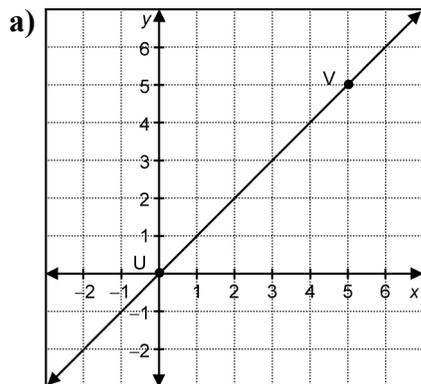


**Practice: Determine the Equation of a Line**

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.

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

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

$x$	$y$
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  $y = mx + b$ .
- $A(-7, 2)$ ,  $B(0, 9)$
  - $A(12, 6)$ ,  $B(-4, -2)$
  - $A(1, 0)$ ,  $B(0, -3)$