

## Linear Functions

A. Determine the indicated characteristics:

1. The slope and y-intercept of the equation:  
 $y = (2/3)x - 6$
2. The slope and y-intercept of the equation  $5x - 2y = 7$
2. The slope of the line segment joining the points  $(-5, 1)$  and  $(-12, 9)$ .
3. The midpoint of the line segment defined by the points  $(-5, -9)$  and  $(11, -3)$
4. The length of the line segment defined by the points  $(8, -2)$  and  $(-3, 5)$ .

B. Determine the equation of the following linear functions given the indicated information:

1. slope is  $2/3$  and the y-intercept is  $7$
2.  $m = -5/3$  and  $b = -2$
3. slope is  $4/7$  and contains the point  $(-1, 4)$
4.  $m = -7/2$  and the point is  $(-4, -3)$