

Name: \_\_\_\_\_

7-15

1. Use the slope formula to find the slopes of lines joining these pair of points:
  - a. (5, 1) (-4, -2)
  - b. (-2, -1) (-4, -9)
  - c. (-3, -2) (1, -4)
  - d. (1, 2) (1, 6)
  - e. (5, 1) (2, 1)
  
2. Find the slope of lines perpendicular to the line joining:
  - a. (-1, 2) (-3, -6)
  - b. (-3, -2) (-6, -1)
  - c. (2, 3) (2, 5)
  - d. (4, 2) (1, 2)
  - e. (2, -6) (3, 4)
  
3. Find the equations of the lines through the given point and having the given slope:
  - a. (3, 4)  $m = -1$
  - b. (1, 3)  $m = \frac{1}{2}$
  - c. (-2, -5)  $m = 0$
  - d. (4, 7)  $m = \frac{3}{4}$
  - e. (1, -3)  $m = -\frac{2}{3}$

4. Find the equations of the lines joining the following points:
- $(-5, 2)$   $(-1, 1)$
  - $(-2, -5)$   $(7, 4)$
  - $(-1, 0)$   $(0, 6)$
  - $(-2, -2)$   $(-2, 4)$
  - $(7, 5)$   $(-3, 5)$
5. Find the slope and y-intercept of the following lines:
- $y = 2x + 5$
  - $2y = 3x - 8$
  - $4x + y = 7$
  - $2x - y = 4$
  - $y = .4$
6. Determine the equation of the line satisfying the given conditions:
- y-intercept 4 and parallel to the line  $x + y = 5$ .
  - through  $(1, 3)$  and parallel to the line  $2x + 3y = 4$ .
  - through  $(-4, 3)$  and parallel to the line  $y = 5$ .
  - slope 3 and x-intercept 4.
  - through  $(-2, 1)$  and parallel to the line joining  $(1, 4)$  and  $(2, -3)$ .
  - x-intercept 2, y-intercept 3.
  - parallel to the y-axis and through  $(3, -4)$ .
  - through  $(2, 5)$  and perpendicular to the line  $2x - 3y = 7$ .
  - through  $(3, 2)$  and perpendicular to the line  $3x - 5y = 2$ .
  - x-intercept 3 and parallel to a line whose slope is 2.