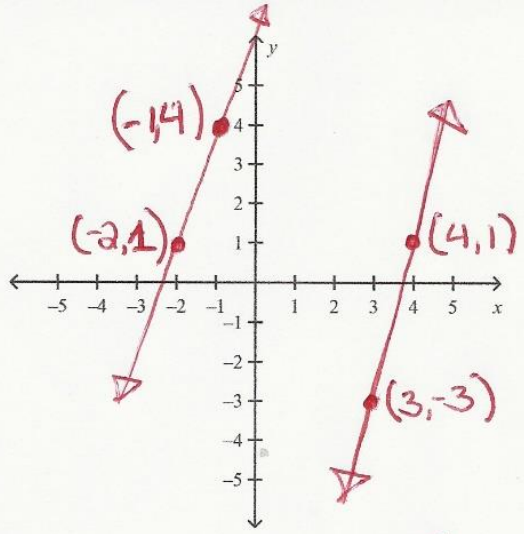
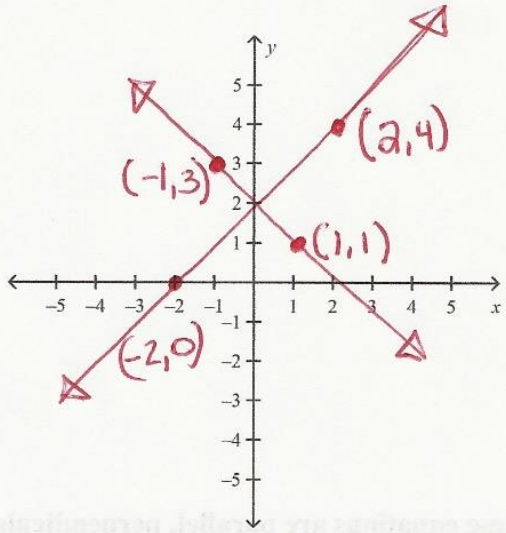
Name: _____ Class: _____ Date: _____ ID: A

Lesson #9 A Assignment-Parallel and Perpendicular Lines
(Reference: Lesson #41, #44, #49, #52 & #65 in book)

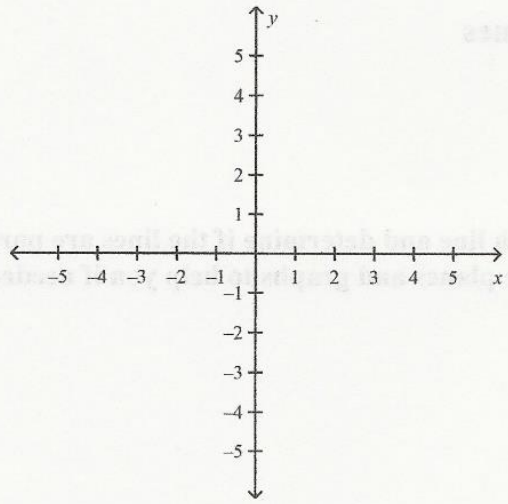
Problem

1. **For each of the following, figure out the slopes for each line and determine if the lines are parallel, perpendicular, or neither. (You can use the coordinate planes and graphs to help you if needed.)**

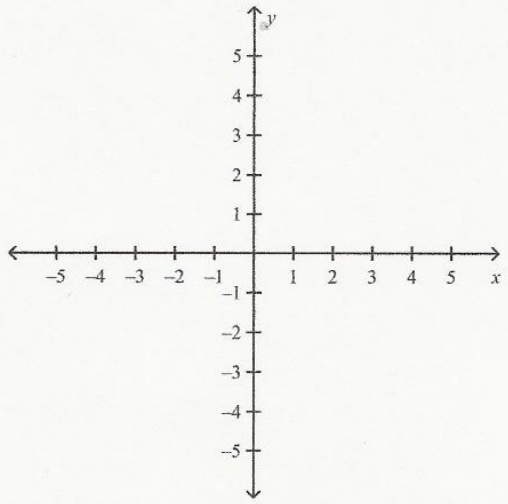




2.

3. 

Line #1: (1,3) and (-1,-3)
Line #2: (-2,-1) and (2,1)

4. 

Line #1: (-4,1) and (-2,3)
Line #2: (1,-5) and (3,-3)

5. **For each of the following problems, tell me whether these equations are parallel, perpendicular, or neither. (<u>HINT</u>: Solve them each for y and get them into $y = mx + b$ form.)**

5. $x + y = 6$

   $x + y = 1$

6. $2x + 3y = 6$

   $4x + 6y = 12$

7. $3x - y = 4$
   $6x - 2y = -12$

8. $5x - y = 1$
   $x - 5y = -10$

9. $3x - y = 4$
   $x + 3y = 9$

10. $x + 2y = 7$
    $-2x + y = 3$

11. $3x - 7y = 35$
    $7x - 3y = -6$

12. $3x - 5y = -1$
    $5x + 3y = 2$