Algebra 1 Worksheet 4.9A Name:_____
Graphing and Writing Equations Per ___ Date _____

Write the equation of the line in point slope form, then rewrite it in slope-intercept form.

1. m = 2, (1, -3)
2. m = 3 , (-4, 6)
3. m = 1/3, (6, -4)

Write the equation (in point slope form) of the line that goes through the point, and is **parallel to the line listed.** Then rewrite the equation in slope-intercept form.

4. (-8, 5) and $y = \frac{3}{4}x - 48$
5. (2, -3) and $y = -5x + 16$
6. (-4, 1) and $y = \frac{-1}{2}x + 19$

7. (-7, 4) and $y = 2x - 3$
8. (3, 0) and $y = -x + 6$
9. (-6, 7) and $y = \frac{-4}{3}x + 5$

Write the equation of the line (in point slope form) that goes through the point, and is **perpendicular to the line listed.** Then rewrite the equation in slope-intercept form.

10. (-6, 1) and $y = \frac{3}{4}x - 48$
11. (10, -3) and $y = -5x + 16$
12. (-4, 1) and $y = \frac{-1}{2}x + 19$

13. (4, -7) and $y = 2x - 3$
14. (3, 0) and $y = -x + 6$
15. (-8, 2) and $y = \frac{-4}{3}x + 5$

Write the equation of the line through the following points in point-slope form, then rewrite in slope intercept form.

16. (2, 4) and (5, 7)

17. (5, -2) and (7, -10)

18. (-3, 4) and (-2, 7)

19. (-3, -4) and (-6, 2)

20. (2, 6) and (3, 8)

21. (-4, -5) and (-8, 11)