Name:_____Date:_____Per:_____

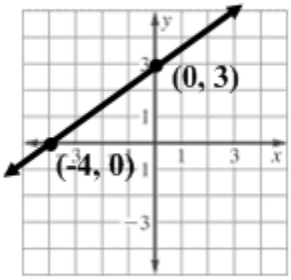
Chapter 5 Practice
Writing Linear Equations

Read each problem carefully and be sure to show ALL of your work. Make sure all numbers are written clearly and to circle each answer. Do your best!

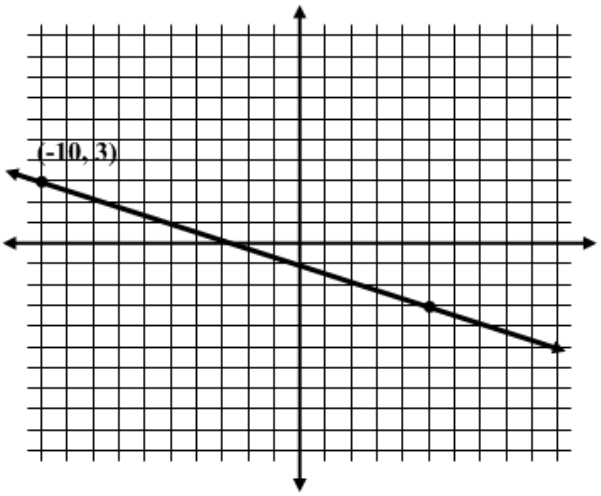
Write the equation of the line with the given information in slope-intercept form:

1. Slope = –3; *y*-intercept: –½

2.



3.



4. passes through (–5, 4); $m = \frac{3}{4}$

Write the equation of the line in slope-intercept form that passes through the given points.

5. (8, 9) (–4, 6)

6. (2, 3.5) (0, 3.5)

7. $f(1) = 1$; $f(-2) = -17$

8. a. Give the slope of the line parallel to $2y + 4x = 8$.

b. Give the slope of the line perpendicular to $y + 4x = 9$.

Write the equation of the line in slope – intercept form that passes through the given point and is parallel to the given line.

9. $3y + 9x = 2$; (1, 2)

Write the equation of the line in slope – intercept from that passes through the given point and is perpendicular to the given line.

10. $y = 2x + 3$; (4, 3)

11. Decide which lines, if any, are parallel or perpendicular. Show or explain work.

a. $y = \frac{2}{7}x + 1$ b. $7y = -2x - 2$ c. $7x - 2y = -4$

12. Write the equation of the in standard form if the line passes through the point (4, –4) and has a slope of $-\frac{3}{4}$.

13. Find the missing coefficient and write the equation in standard form using the given information:

The line $2x + By = -2$ passes through the point $(1, -4)$

For numbers 14-16 use the information below.

A cell phone company charges a basic monthly fee, plus a fee for each additional minute used. In one month, one customer paid $42.50 and used 20 extra minutes. Another customer paid $44 for 30 extra minutes.

14. Find the cost per extra minute.

15. Find the basic monthly cost.

16. Write an equation to represent the total cost for one month for any number of additional minutes used.