Practice

Equations of Lines

Write an equation in slope-intercept form of the line having the given slope and y-intercept.

1.
$$m: \frac{2}{3}$$
, y-intercept: -10 **2.** $m: -\frac{7}{9}$, $\left(0, -\frac{1}{2}\right)$

2.
$$m: -\frac{7}{9}, \left(0, -\frac{1}{2}\right)$$

Write equations in point-slope form and slope-intercept form of the line having the given slope and containing the given point.

4.
$$m: \frac{3}{2}, (4, 6)$$

5.
$$m: -\frac{6}{5}, (-5, -2)$$

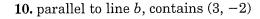
6.
$$m$$
: 0.5, $(7, -3)$

7.
$$m: -1.3, (-4, 4)$$

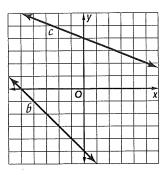
Write an equation in slope-intercept form for each line.



9. c



11. perpendicular to line c, contains (-2, -4)



Write an equation in slope-intercept form for the line that satisfies the given conditions.

12.
$$m = -\frac{4}{9}$$
, y-intercept = 2

13.
$$m = 3$$
, contains $(2, -3)$

14. x-intercept is
$$-6$$
, y-intercept is 2

15. *x*-intercept is 2, *y*-intercept is
$$-5$$

16. passes through
$$(2, -4)$$
 and $(5, 8)$

17. contains
$$(-4, 2)$$
 and $(8, -1)$

18. COMMUNITY EDUCATION A local community center offers self-defense classes for teens. A \$25 enrollment fee covers supplies and materials and open classes cost \$10 each. Write an equation to represent the total cost of x self-defense classes at the community center.