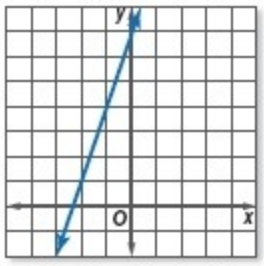
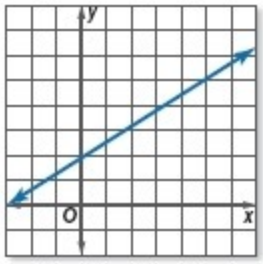
Mid-Chapter Quiz

Write an equation in slope-intercept form for each graph shown.

1. 

2. 

Graph each equation. Then state the slope and *y*-intercept.

3. $y = 2x + 3$

4. $y = \frac{1}{3}x - 2$

5. **BOATS** Write an equation in slope-intercept form for the total rental cost C for a pontoon boat used for t hours.

Write an equation of the line with the given conditions.

6. (2, 5); slope 3

7. (−3, −1), slope $\frac{1}{2}$

8. (−3, 4), (1, 12)

9. (−1, 6), (2, 4)

10. (2, 1), slope 0

11. **MULTIPLE CHOICE** Write an equation of the line that passes through the point (0, 0) and has slope −4.

A $y = x - 4$
B $y = x + 4$
C $y = -4x$
D $y = 4 - x$

Write an equation in point-slope form for the line that passes through each point with the given slope.

12. (1, 4), $m = 6$

13. (−2, −1), $m = -3$

14. Write an equation in point-slope form for the line that passes through the point (8, 3), $m = -2$.

15. Write $y + 3 = \frac{1}{2}(x - 5)$ in standard form.

16. Write $y + 4 = -7(x - 3)$ in slope-intercept form.

Write each equation in standard form.

17. $y - 5 = -2(x - 3)$

18. $y + 4 = \frac{2}{3}(x - 3)$

Write each equation in slope-intercept form.

19. $y - 3 = 4(x + 3)$

20. $y + 1 = \frac{1}{2}(x - 8)$

21. **MULTIPLE CHOICE** Determine whether the graphs of the pair of equations are *parallel*, *perpendicular*, or *neither*.

$y = -6x + 8$

$3x + \frac{1}{2}y = -3$

F parallel
G perpendicular
H neither
J not enough information

Write an equation in slope-intercept form for the line that passes through the given point and is perpendicular to the graph of the equation.

22. (3, −4); $y = -\frac{1}{3}x - 5$

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23. $(0, -3)$; $y = -2x + 4$

24. $(-4, -5)$; $-4x + 5y = -6$

25. $(-1, -4)$; $-x - 2y = 0$