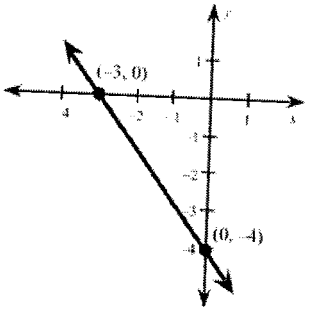
Name: _____ Hour: _____ Date: _____ ID: A

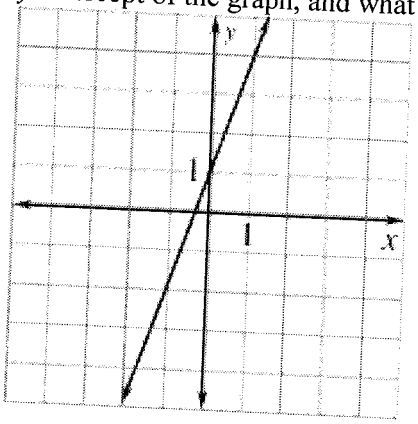
Chapter 5 Practice Quiz - lessons 1 - 4

1. Write an equation of the line with slope $\frac{1}{3}$ and y-intercept -4.

2. Write an equation of the line shown on the graph.



3. Writing: Write an equation in slope-intercept form for the graph shown below. What are the slope and y-intercept of the graph, and what do they tell you about the graph?



Write an equation for the function in the form $f(x) = mx + b$.

4. $f(-4) = -12,\ f(0) = -4$

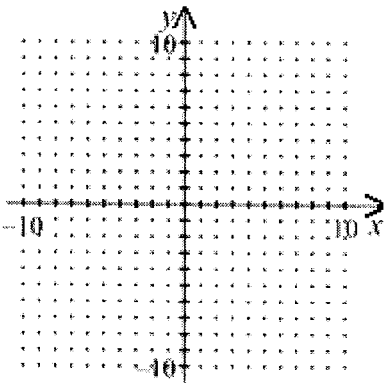
____ 5. The cost of a school banquet is \$95 plus \$15 for each person attending. Write an equation that gives total cost as a function of the number of people attending. What is the cost for 77 people?

a. $y = 15x - 95$; \$1060
c. $y = 15x + 95$; \$1250
b. $y = 95x + 15$; \$7330
d. $y = 95x - 15$; \$7300

6. Write an equation in slope-intercept form of a line with slope –2 passing through the point (3, –2).

7. Find the y-intercept of a line that passes through $(5, -3)$ and has a slope of -1.

8. A line passes through the point (–2, –2) and has a slope of 2. Sketch the line and write its equation in slope-intercept form.



9. Write an equation in slope-intercept form for the line containing $(-6, 13)$ and $(2, -3)$.

Which is the equation for the linear function f in the form $f(x) = mx + b$ that has the given values?

____ 10. $f(2) = 0$, $f(7) = 10$

a. $f(x) = -2x + 4$ b. $f(x) = -2x + 24$ c. $f(x) = 2x + 4$ d. $f(x) = 2x - 4$

11. Write an equation in point-slope form of the line that passes through the point (6, 9) and has the slope $\frac{1}{2}$.

Write an equation in point-slope form of the line that passes through the given point and has the given slope *m*.

12. $(5, -7)$, $m = \frac{3}{5}$

____ 13. Write an equation in point-slope form of the line that passes through the points (–2, 6) and (2, 4).

a. $y + 2 = -\frac{1}{2}(x - 6)$

b. $y - 6 = -2(x + 2)$

c. $y - 6 = -\frac{1}{2}(x + 2)$

d. $y + 2 = -2(x - 6)$

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

14. (4, –4), (7, 6)

15. (–1, 4) and (1, 2)

16. Write an equation of the line, in point-slope form, that passes through the points (3, –3) and (6, 1). Use (3, –3) as the point (x_1, y_1).

17. An editor gets a $1260 raise each year. In her fourth year, she is making $71,700 per year. Write an equation in point-slope form which models her income in terms of how many years she has worked at the company.

18. Write the standard form of the equation of the line with slope 4 passing through the point (–2, 3).

19. Write the equation of the line passing through (2, –7), (2, 0), and (2, 5).

20. Write the equation of the line passing through (1, –2), (5, –2), and (10, –2).

21. A line passes through the points (6, 4) and (3, –2).
    a. What is the slope of the line? Write an equation of the line in point-slope form.
    b. What method would you use to rewrite the equation you wrote in part (a) in standard form? What is an equation of the line in standard form?

22. Write the equation of the horizontal line passing through the point (7, 4).

23. Write the equation of the vertical line passing through the point (–5, 2).

24. Find the y-intercept of the line containing the point (5, –2) and having 0 slope.

25. The clearing house has resistors that sell for $3.50 each and circuit boards that sell for $2.25 each. Write an equation that represents how many of each type of electronic equipment can be bought with $7.

Write an equation in standard form of the line that passes through the given point and has the given slope m or that passes through the two given points.

26. $(-3, 2), (1, -4)$

Find the missing coefficient in the equation of the line that passes through the given point. Write the completed equation.

27. $3x + By = 97, \ (23, -4)$

Write two equations in standard form that are equivalent to the given equation.

28. $7x + 4y = -5$

29. $0.1x + 1.3y = 4.3$