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Mid-Chapter Quiz


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Do you know HOW?

Determine whether each relation is a function.

1.

x	y
3	7
4	2
3	2
5	1

2.

x	y
1	1
2	2
3	3
4	4

 Find the x - and y -intercepts of each line.

3. $x - 3y = 9$

4. $y = 7x + 5$

5. $y = 6x$

6. $-4x + y = 10$

Write the equation of each line in slope-intercept form and identify the slope.

7. $2x - y = 9$

8. $4x = 2 + y$

9. $5y = -3x - 10$

10. $4x + 6y = 12$

Write an equation of each line in standard form with integer coefficients.

11. the line through $(2, 3)$ and $(4, 5)$

12. the line through $(-4, 6)$ and $(2, -2)$

13. the line through $(-4, 2)$ with slope 3

14. the line through $(1, 2)$ with slope $\frac{4}{5}$

15. a line through $(3, 1)$ with slope 0

16. a line with slope of $\frac{2}{3}$ and y -intercept $(0, 5)$

17. $2y = -4x - 12$

18. $\frac{2}{3}x + 3 = 6y - 15$

Write an equation of each line in point-slope form.

19. $(-4, 2)$ and $(-3, 5)$

20. $(0, 0)$ and $(-4, -5)$

21. $(-4, -3)$ and $(2, 7)$

Graph each equation.

22. $2y = 4x + 8$

23. $2x - 3y = 6$

24. $4y - x = 16$

 For each function, determine whether y varies directly with x . If so, identify the constant of variation.

25. $2y = 3x$

26. $4y - 7x = 0$

27. $y + \frac{3}{4}x = 12$

Do you UNDERSTAND?

28. a. A group of friends is going to the movies. Each ticket costs \$8.00. Write an equation to model the total cost of the group's tickets.
 b. Graph the equation. Explain what the x - and y -intercepts represent.
 c. What would be the cost for 12 tickets?
 d. **Writing** Could the domain include fractions? Explain.
29. Which line is perpendicular to $3x + 2y = 6$?
- (A) $4x - 6y = 3$ (C) $2x + 3y = 12$
 (B) $y = -\frac{3}{2}x + 4$ (D) $y = \frac{3}{2}x + 1$
30. **Reasoning** Why is the slope of a vertical line undefined?
31. Suppose $m = 25 - 0.15n$ describes the amount of money remaining on a \$25 phone card m , as a function of the number of minutes of calls you make n . What are a reasonable domain and range?