

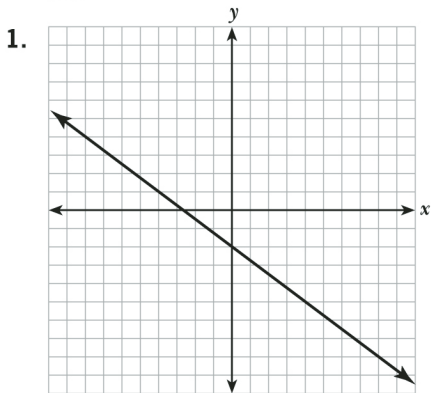
NAME _____

DATE _____

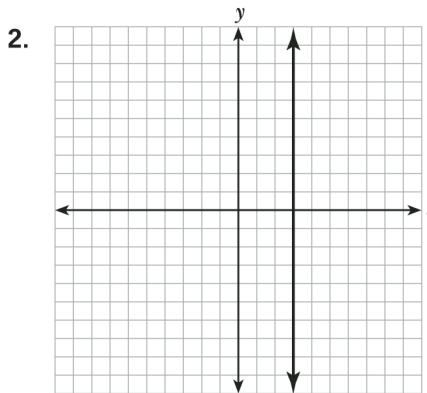
Module Test **B**

Module 8

Use $\frac{\text{rise}}{\text{run}}$ to find the slope of each line.



$-\frac{2}{3}$



undefined

Find the slope of the line passing through the given points.

3. (0, 0) and (3, -1) $-\frac{1}{3}$

4. (4, 5) and (4, -3) undefined

5. Find the slope of a line perpendicular to the y-axis.

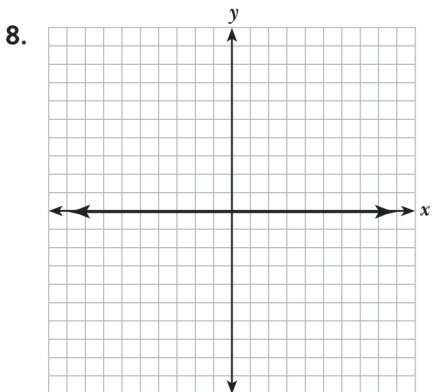
0

6. Find the slope of a line parallel to the line passing through the points (2, 3) and (5, 3).

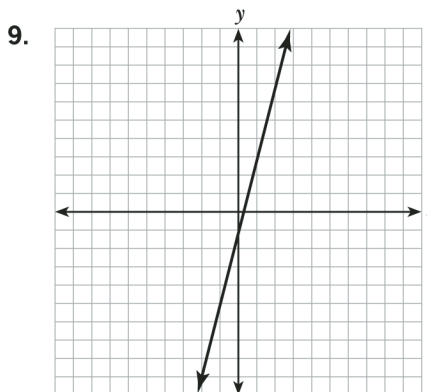
0

7. Find the slope of a line perpendicular to the line passing through the points (3, 2) and (6, 5). -1

Find the slope-intercept form of the equation of the line shown.



$y = 0$



$y = 4x - 1$

© 2003 BestQuest

Find the equation of the line in slope-intercept form.

10. Slope = 2 y-intercept = -3

$$y = 2x - 3$$

12. Write the equation of the line in slope-intercept form that has slope -4 and passes through the point (-3, -2).

$$y = -4x - 14$$

14. Write the equation of the line in slope-intercept form that is parallel to the line
- $y = \frac{1}{4}x - 5$
- and has a y-intercept of -2.

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

16. Find the equation in slope-intercept form of the line that passes through the point (1, 2) and has a slope of 0.

$$y = 2$$

18. Find the equation in slope-intercept form of the line that contains the point (2, 5) and is perpendicular to the graph of
- $y = -x$
- .

$$y = x + 3$$

20. Find the slope and y-intercept of
- $3x + 2y = 6$
- .

$$-\frac{3}{2}; 3$$

22. Given
- $y = 2x + 1$
- , determine the resulting equation when the slope is multiplied by 3. Compare the graphs.

$$y = 6x + 1$$

The resulting line is steeper than the original line. The lines intersect at the y-intercept.

11. Slope =
- $\frac{1}{5}$
- y-intercept = 0

$$y = \frac{1}{5}x$$

13. Write the equation of the line that is perpendicular to
- $x = 3$
- and passes through the point (-4, 8).

$$y = 8$$

15. Find the equation in slope-intercept form of the line that passes through the point (-1, 5) and has a slope of -2.

$$y = -2x + 3$$

17. Find the equation of the line that contains the point (-2, -6) and has an undefined slope.

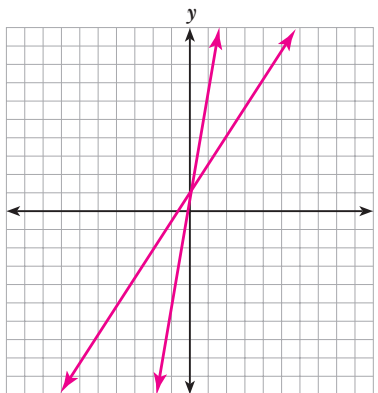
$$x = -2$$

19. Find the equation in slope-intercept form of the line that passes through the point (8, -2) and is perpendicular to the line through the points (0, 0) and (4, 1).

$$y = -4x + 30$$

21. Find the slope and y-intercept of
- $-x - y = -5$
- .

$$-1; 5$$



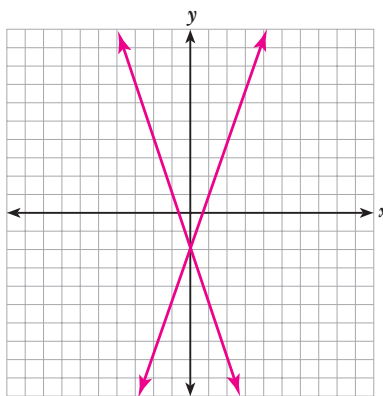
23. Find an equation of the line in slope-intercept form with the same y -intercept and opposite slope as the line $3x + y = -2$. Compare the graphs.

$$y = 3x - 2$$

The given line rises to the left. The

resulting line rises to the right. The

lines intersect at the y -intercept.



24. The equation $3x - y = 4$ can be written in which of the following ways.

A. $y = 3x - 4$

B. $y = -3x - 4$

C. $y = -3x + 4$

D. $y = 3x + 4$

25. Suppose two linear equations are graphed on the same coordinate plane. The lines do not intersect. The y -intercept of one of the lines is 3 less than the y -intercept of the other line. Which of the following pairs of equations could represent the lines?

A. $y = 2x + 2$; $y = 2x + 6$

B. $y = 2x + 2$; $y = -x + 2$

C. $y = 2x + 2$; $y = 2x + 5$

D. $y = 2x + 2$; $y = 2x - 6$

26. Answer the following questions in the space provided. Show all work. Be sure to label responses (A), (B), and (C).

- A. Graph the line represented by the equation $-4x + 3y = 12$.

- B. Multiply the slope of the line by 3 and increase its y -intercept by 2. Write the new equation. Graph the resulting line on the same coordinate plane.

$$y = 4x + 6$$

- C. How are the two graphs related?

The resulting line is steeper and

intersects the y -axis two units up.

