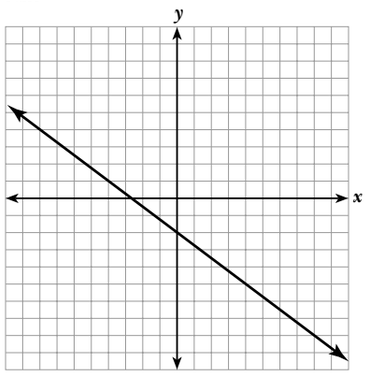
NAME _____ DATE _____

Module Test B

Module 8

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

1.



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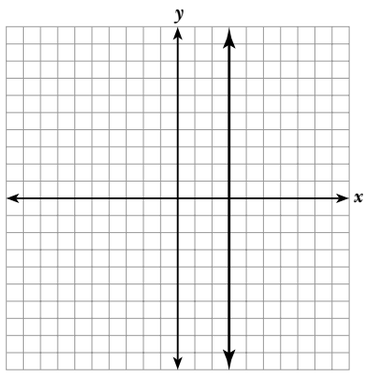
2.



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

3. (0, 0) and (3, –1) _____

4. (4, 5) and (4, –3) _____

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

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

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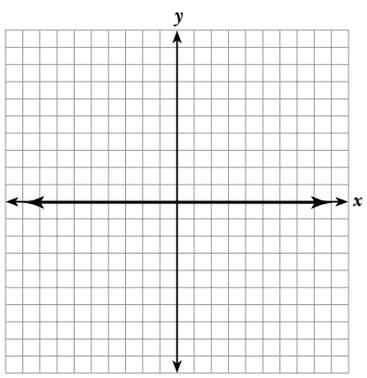
7. Find the slope of a line perpendicular to the line passing through the points (3, 2) and (6, 5). _____

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

8.



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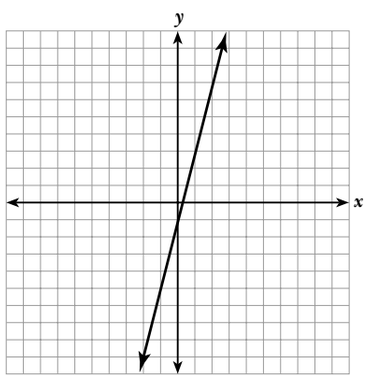
9.



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

10. Slope = 2 y-intercept = –3

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

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

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

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.

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

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

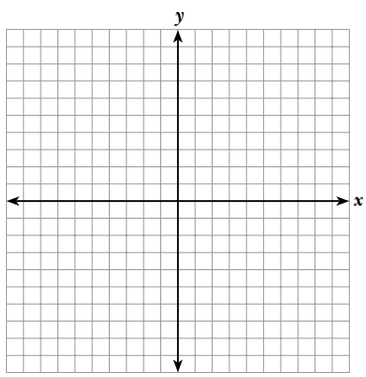
18. Find the equation in slope-intercept form of the line that contains the point (2, 5) and is perpendicular to the graph of $y = -x$.

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).

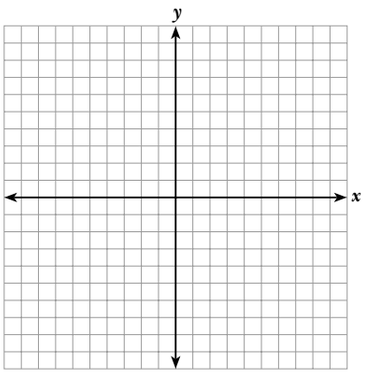
20. Find the slope and y-intercept of $3x + 2y = 6$.

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

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



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.



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

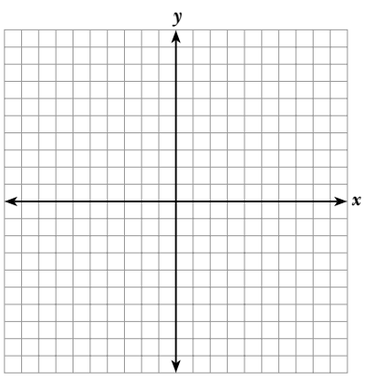
A. $y = 3x - 4$ **B.** $y = -3x - 4$
C. $y = -3x + 4$ **D.** $y = 3x + 4$

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.

C. How are the two graphs related?