NAME

DATE

Module Test A

Module 8

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

1.

2.
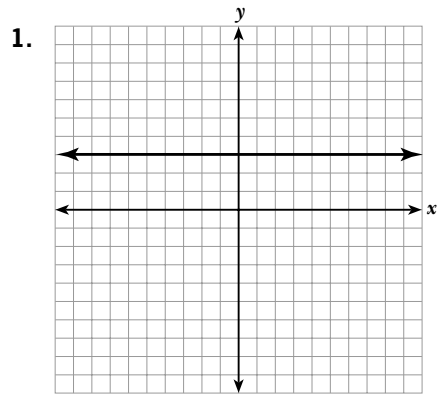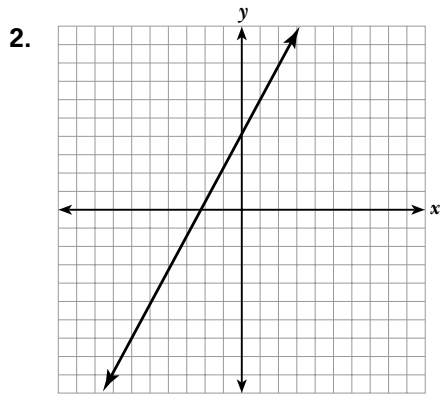
Find the slope of the line passing through the given points.
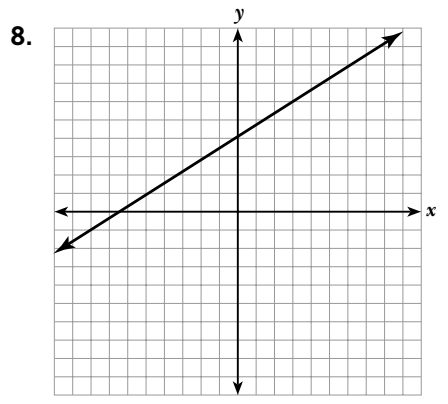
3. (1, 2) and (4, –6)
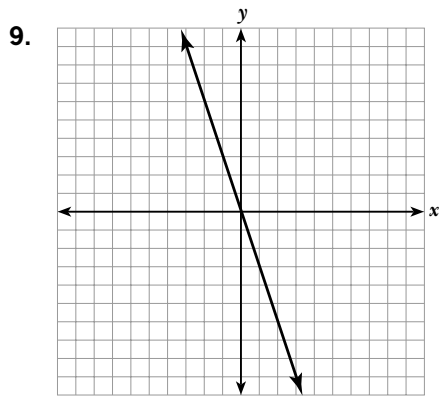
4. (–2, –6) and (2, 3)

5. Find the slope of a line parallel to the line passing through the points (3, 4) and (–2, 4).

6. Find the slope of a line perpendicular to the line passing through the points (3, 2) and (–6, 9).

7. Find the slope of any line perpendicular to the *x*-axis.

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

8.

9.

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Find the equation of the line in slope intercept form.

10. Slope $= 2$ y-intercept $= -8$

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11. Slope $= \frac{4}{5}$ y-intercept $= 0$

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12. Find the equation of the line that has an undefined slope and passes through $(3, -2)$.
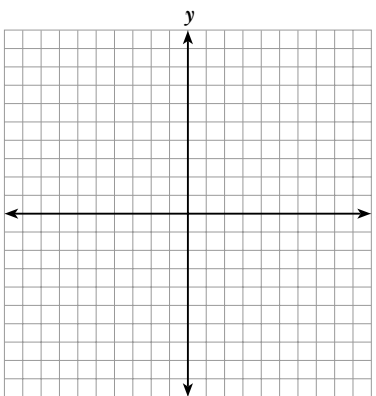
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13. Find the equation of the line in slope-intercept form that passes through the points $(0, -2)$ and $(3, 4)$.

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14. Write the equation of the line in slope-intercept form that is perpendicular to $y = -\frac{3}{4}x + 2$ and has a y-intercept of -3.

_____

15. Write the equation of the line in slope-intercept form that is parallel to $y = 2x + 3$ and passes through the point $(3, -5)$.

_____

16. Find the equation in slope-intercept form of the line that contains the point $(2, -3)$ and has a slope of 4.

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17. Find the equation in slope-intercept form of the line that contains the point $(9, -3)$ and is parallel to the graph of $y = \frac{1}{3}x + 2$.

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18. Find the equation in slope-intercept form of the line that contains the point $(1, 4)$ and is perpendicular to the graph of $y = -x$.

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

_____

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

_____

21. Find the slope and y-intercept of $4x - 5y = 15$.

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22. Given $y = -\frac{3}{5}x + 4$, determine the resulting equation when the y-intercept is decreased by 2. Compare the graphs.

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23. Find an equation of the line in slope-intercept form with the same *y*-intercept and opposite slope as the line $y = -4x - 3$. Compare the graphs.

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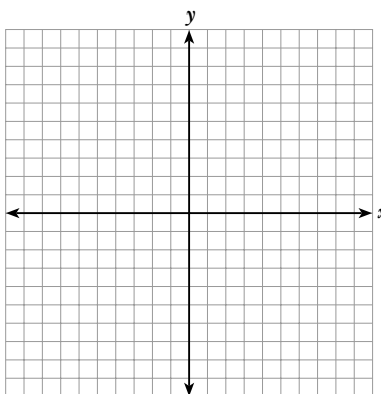
24. What is the slope of the line that passes through the points (1, −1) and (4, 3)?

A. $\frac{3}{4}$　　　　**B.** $\frac{4}{3}$　　　　**C.** $-\frac{3}{4}$　　　　**D.** $-\frac{4}{3}$

25. When the slope of the line is negative, the orientation of the line is described by which of the following terms?

A. Rises to the right　　　　**B.** Rises to the left

C. Horizontal　　　　**D.** Vertical

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 $-3x + 4y = 12$.

B. Multiply the slope of the line by 4 and increase its *y*-intercept by 3. Write the new equation. Graph the resulting line on the same coordinate plane.

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C. How are the two graphs related?

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