

Slope, Y-Intercept, and Equations of Graphs

1. What information does the y-intercept give? _____
2. How do you find the y-intercept given a graph of a line? _____

3. What does the graph look like if the slope is undefined? _____
4. Why is there no y-intercept if you find that the slope is undefined? _____

5. What does the graph look like if the slope is zero? _____

State the slope and y-intercept from each equation.

6. $y = 3x + 4$

7. $y = -\frac{3}{7}x - \frac{1}{7}$

8. $y = -x + \frac{3}{2}$

Write the equation given the slope and y-intercept.

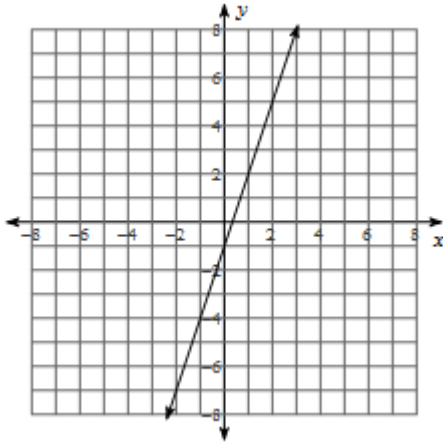
9. Slope: $\frac{3}{4}$, y-intercept: -2

10. Slope: $\frac{5}{6}$, y-intercept: 8

11. Slope: $-\frac{1}{3}$, y-intercept: 0

For each problem, find the following and write the function rule in slope-intercept form.

<p>12. $m =$ _____</p> <p>13. Circle: Increasing Decreasing Constant Vertical</p> <p>14. y-intercept: $(0, \underline{\hspace{2cm}})$</p> <p>15. Function Rule: _____</p>	<p>16. $m =$ _____</p> <p>17. Circle: Increasing Decreasing Constant Vertical</p> <p>18. y-intercept: $(0, \underline{\hspace{2cm}})$</p> <p>19. Function Rule: _____</p>	<p>20. $m =$ _____</p> <p>21. Circle: Increasing Decreasing Constant Vertical</p> <p>22. y-intercept: $(0, \underline{\hspace{2cm}})$</p> <p>23. Function Rule: _____</p>

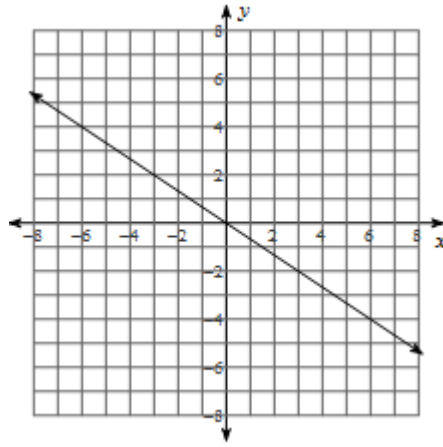


24. $m =$ _____

25. Circle: Increasing Decreasing
Constant Vertical

26. y-intercept: $(0, \underline{\hspace{1cm}})$

27. Function Rule: _____

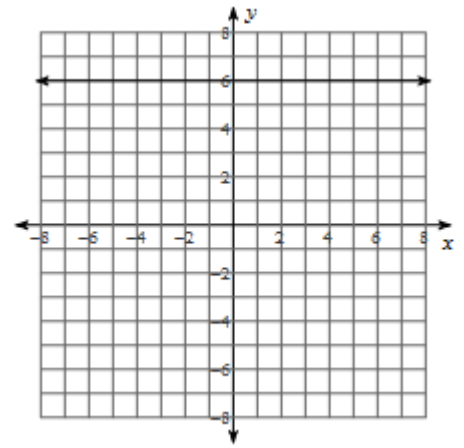


28. $m =$ _____

29. Circle: Increasing Decreasing
Constant Vertical

30. y-intercept: $(0, \underline{\hspace{1cm}})$

31. Function Rule: _____

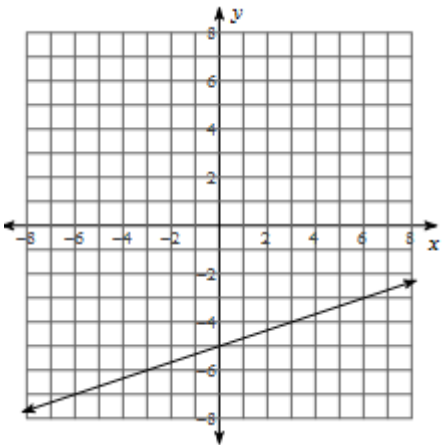


32. $m =$ _____

33. Circle: Increasing Decreasing
Constant Vertical

34. y-intercept: $(0, \underline{\hspace{1cm}})$

35. Function Rule: _____

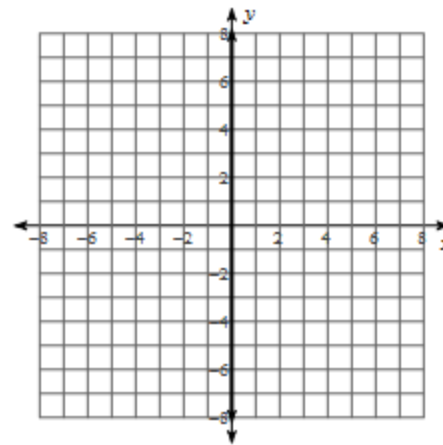


36. $m =$ _____

37. Circle: Increasing Decreasing
Constant Vertical

38. y-intercept: $(0, \underline{\hspace{1cm}})$

39. Function Rule: _____

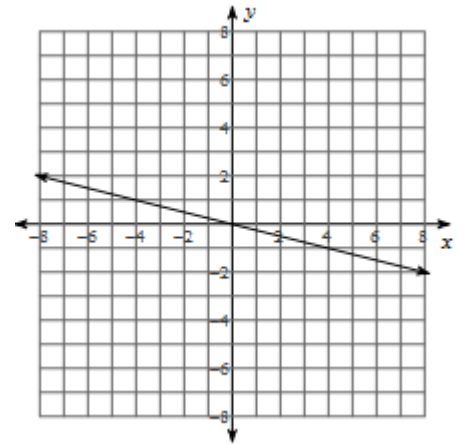


40. $m =$ _____

41. Circle: Increasing Decreasing
Constant Vertical

42. y-intercept: $(0, \underline{\hspace{1cm}})$

43. Function Rule: _____



44. $m =$ _____

45. Circle: Increasing Decreasing
Constant Vertical

46. y-intercept: $(0, \underline{\hspace{1cm}})$

47. Function Rule: _____

Simplify. All numbers should be evaluated and all variables should have positive exponents.

48. $x^3 \cdot 3x^2$

49. $\frac{3y^8}{5y^4}$

50. $(2x^2y^{-3})^3$