

Name: _____ Period: _____

Score:
_____ / _____
_____ %

Unit 2 Review

State if the following tables have a constant rate of change. If so, find the constant rate of change. If not, explain why.

1.

Hours	Miles
1	46
2	92
3	138
4	184

2.

Minutes	Dollars (\$)
15	5
30	9
45	13
60	15

3.

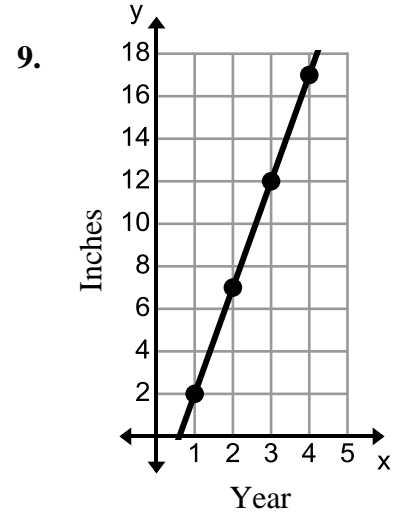
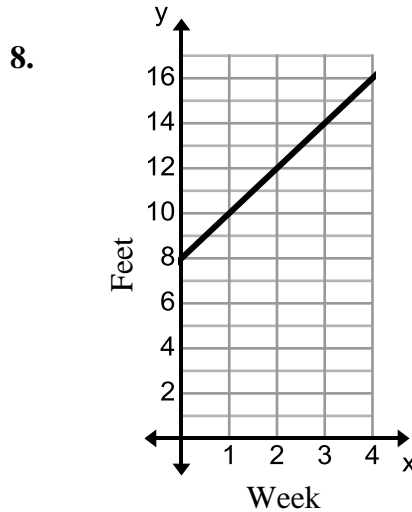
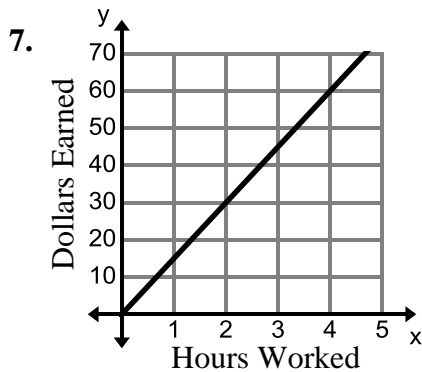
Seconds	Feet
10	53
12	57
15	63
19	71

4. Does problem #1 show a proportional relationship? Explain.

5. Does problem #2 show a proportional relationship? Explain.

6. Does problem #3 show a proportional relationship? Explain.

Find the constant rate of change from the graphs below. State if the graphs show a proportional relationship. Explain.



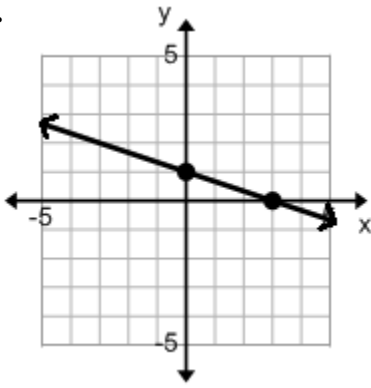
Find the constant rate of change given each situation.

10. A cell phone plan is \$40 a month for 800 minutes.

11. You got paid \$450 for 12 hours.

For each graph state the following information: x -intercept, y -intercept, slope, and equation.

12.



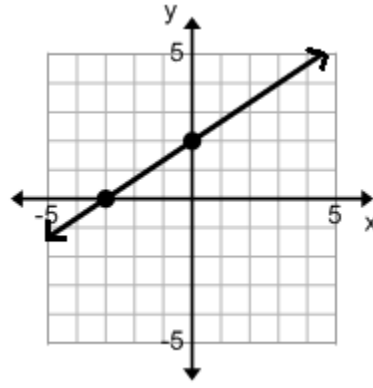
x -intercept: _____

y -intercept: _____

slope: _____

equation: _____

13.



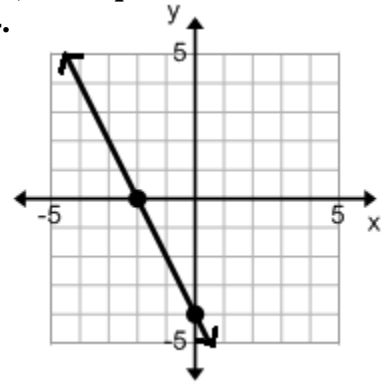
x -intercept: _____

y -intercept: _____

slope: _____

equation: _____

14.



x -intercept: _____

y -intercept: _____

slope: _____

equation: _____

Find the slope of the line through the following points using the slope formula.

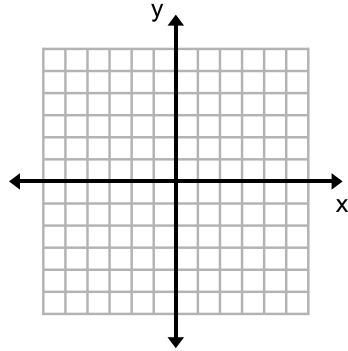
15. $(3,6), (1,4)$

16. $(-2,4), (2,10)$

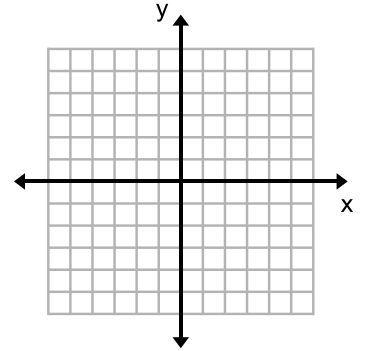
17. $(-14,7), (0,-1)$

Graph the line of the following equations.

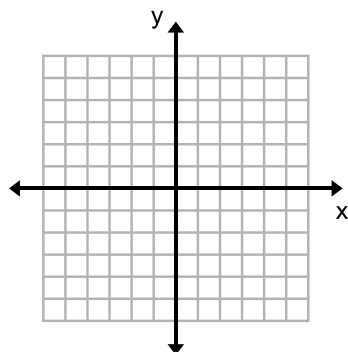
18. $y = \frac{2}{3}x + 4$



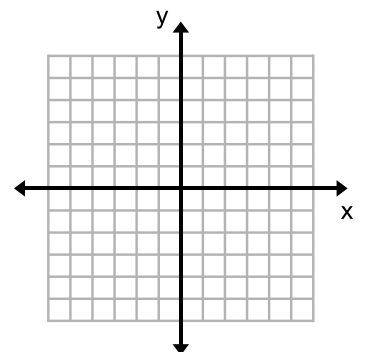
20. $2x + 3y = 9$



19. $4x + 2y = 10$



21. $y = -4$



Write the equation of the line in slope-intercept form. ($y = mx + b$)

22. $m = -7$; $b = 4$

25. $m = \frac{3}{4}$; $(0, 8)$

23. $m = -\frac{1}{4}$; $b = \frac{2}{7}$

26. $m = -1$; $(0, -5)$

24. $m = 0$; $b = -1$

Solve for y . Write the equation in slope-intercept form. ($y = mx + b$)

27. $-5y = 2x + 10$

28. $6x + 3y = 2$

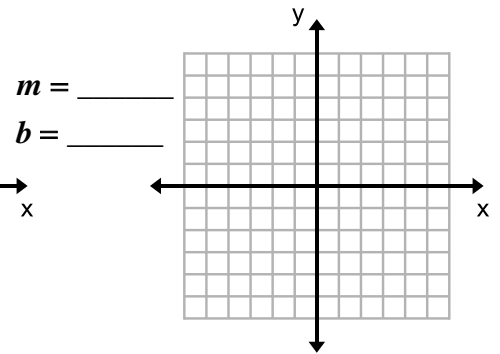
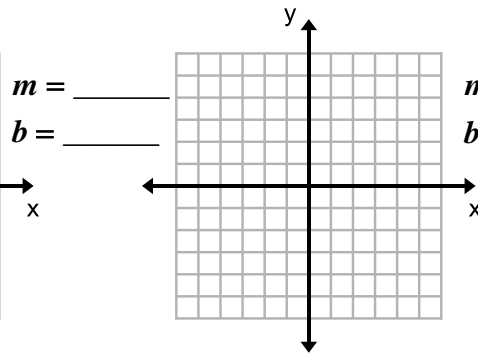
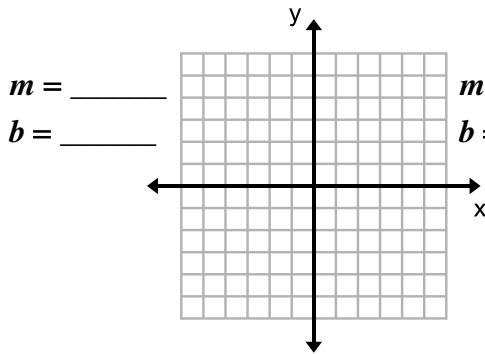
29. $y - 8 = -15$

Graph each equation using slope-intercept form.

30. $y = 2x - 3$

31. $y = x$

32. $y = -3x$

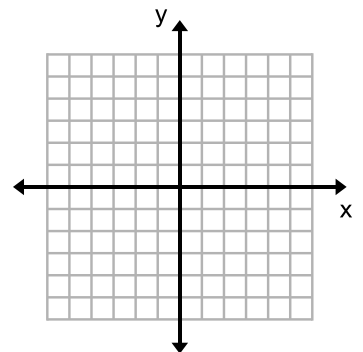
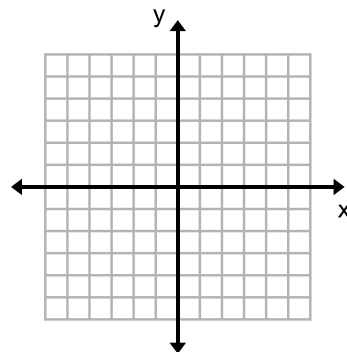
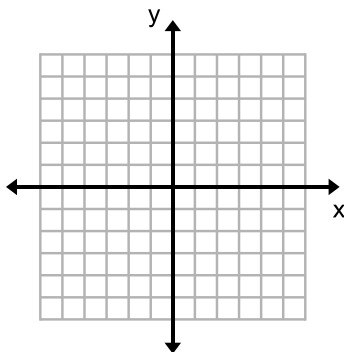


Find the x - and y -intercepts and then graph each line. Write the intercepts as a point.

33. $x + y = 5$

34. $2x + 3y = 12$

35. $4x - 3y = -12$



x - int: _____

y - int: _____

x - int: _____

y - int: _____

x - int: _____

y - int: _____

36. Given the equation $y = -3x + 4$, if the line shifts down by 5 units what is the new equation of the line.

37. Which equation has the steepest slope?

A. $y = -3x + 2$ B. $y = 5x + 7$ C. $y = -9x + 1$

38. Given the equation $y = \frac{2}{3}x - 7$, if the slope remains the same and the y-intercept increases by 2 units what is the new equation of the line?