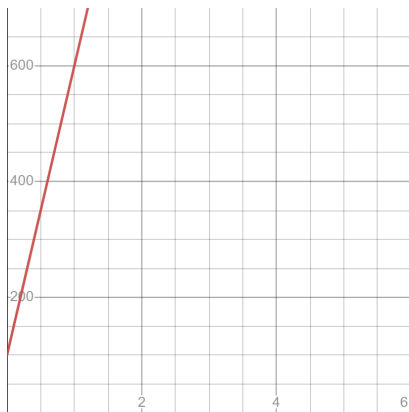


Lesson 2-89: Analyze Linear Equations: $y = mx + b$

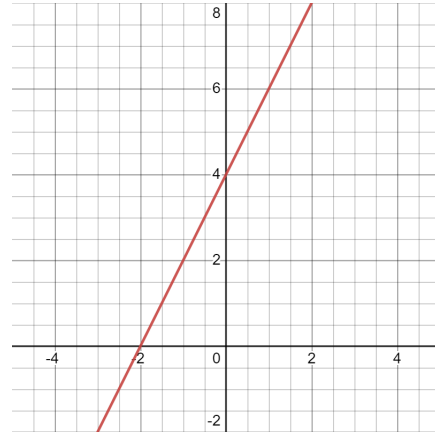
1. Sample answer: The equation is $y = mx + b$, where m is the slope and b is the y-intercept.
2. Sample answer: You can find the equation by using the information given. You know the slope, m , is $\frac{2}{5}$ and the y-intercept, b , is 50. So the equation of the line in slope-intercept form is $y = \frac{2}{5}x + 50$.
3. Sample answer: The graph has a positive slope, $\frac{3}{4}$, so it will move up from left to right. The y-intercept will be at -4, so the line will move up from Quadrant III through Quadrant IV to Quadrant I.
4. George; Sample answer: The slope is negative and the y-intercept is 5.

5. a.



b. $y = 500x + 100$

6. 4
(0,4)
up
2; 1
(1,6)

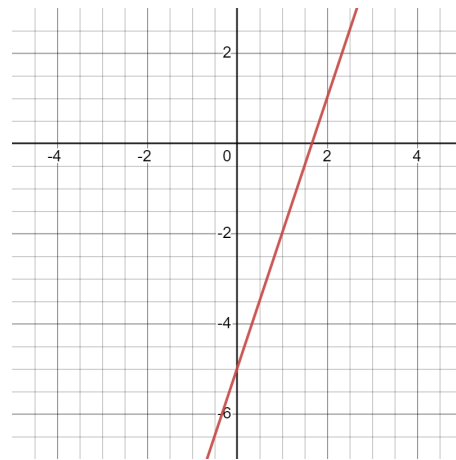


7. $y = -\frac{1}{2}x - 3$

8. $y = 3x + 4$

9. $y = 12x + 6$

10.



11. a. $y = -5x + 25$

b. Sample answer: She might have mixed up the x-intercept with the y-intercept when finding the y-intercept, or b .

Lesson 2-89: Analyze Linear Equations: $y = mx + b$

12. a. $y = 21x + 12.25$

b. Sample answer: The slope-intercept form of the line is $y = mx + b$, where m is the slope or rate of change (\$21 per ticket), and b is the y-intercept (the fee added to each order). You can substitute these values into the slope-intercept form of the equation.

c. Sample answer: No, the graph should be a series of points since only whole numbers of tickets can be purchased.

13. D

14. $y = -2x + 8$