

1. Write the equation of the line that passes through the points $(-6, -2)$ and $(3, 4)$.

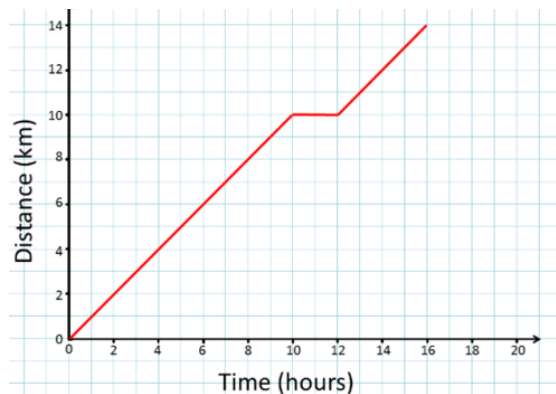
- Find the slope (m). Show your work to justify your answer.
- Use the slope and one of the points to write the equation in Point-Slope form.
- Algebraically manipulate your equation from Step B to write the final answer in Slope-Intercept form.

2. Marty is asked to change the standard form linear equation $4x - 2y = 16$ to slope-intercept form. Marty's work is shown below:

$4x - 2y = 16$	Line A
$-2y = -4x + 16$	Line B
$y = -2x - 8$	Line C

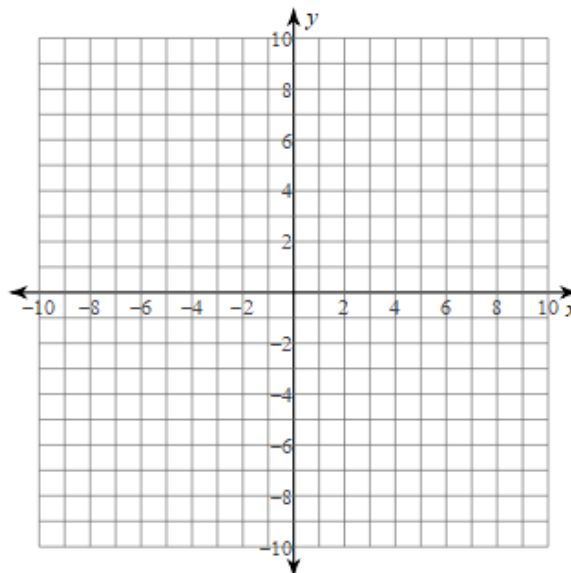
- Describe the specific algebraic error that Marty made when moving from Line B to Line C.
- Write the correct equation in slope intercept form.

3. Sara's distance from home in kilometers is represented in the graph below as a function of time in hours.

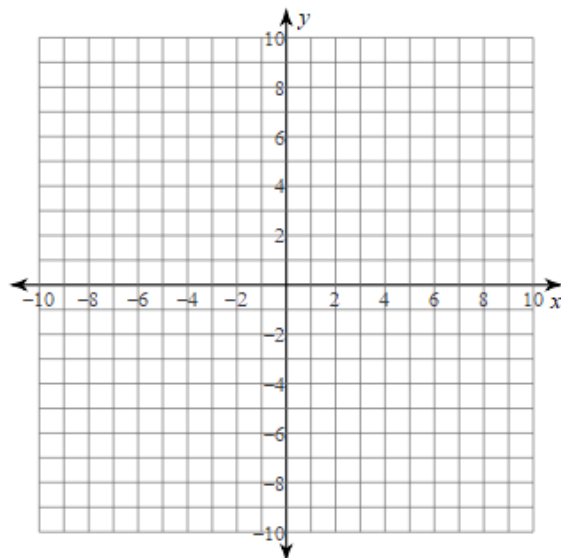


- Describe what coordinate $(11, 10)$ represent in the context of this problem? Include units.
- Calculate Sara's speed (in kilometers per hour) during the first 5 hours of her trip. Show your work based on the graph.

4. Graph the equation: $x + 3y = 6$.

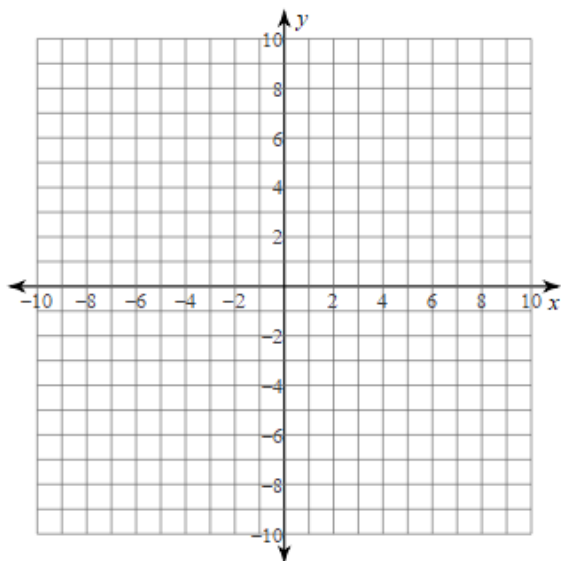


5. Graph the equation: $y = -\frac{2}{3}x + 5$



6. Graph the linear inequality (paying attention to dashed vs. solid) and shade the correct region:
 $2x - 5y \geq 10$

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7. Solve the absolute value inequality (showing all of your work) then graph the solution set on the number line.

$$|2x - 4| \leq 6$$



8. Solve the compound inequality (showing all of your work) then graph the solution set on the number line.

$$-5 \leq 3x + 4 < 16$$

