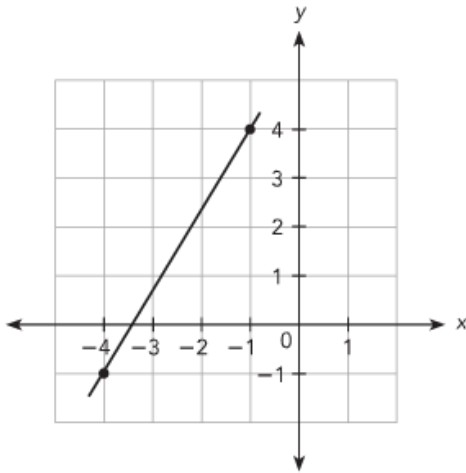


Problem Set #3.1 - Interpreting Slope

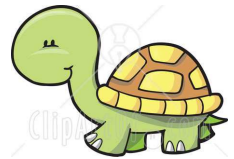
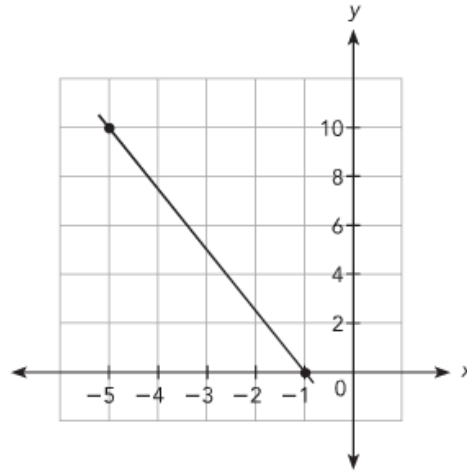
Name: _____ Class: _____

Find the slope of each line.

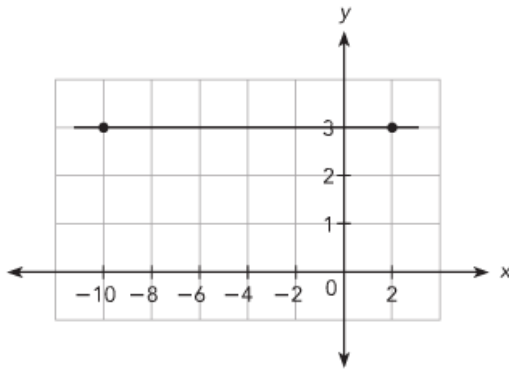
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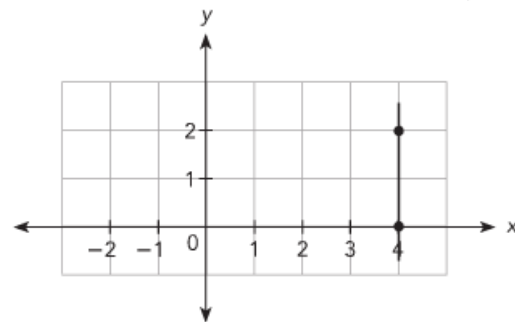
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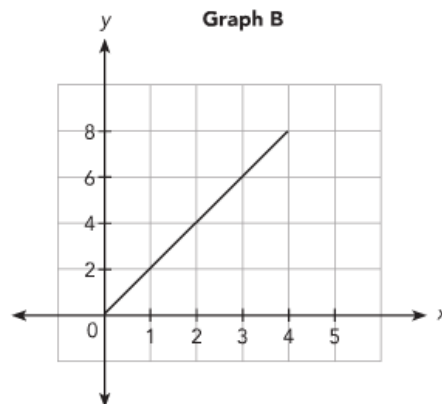
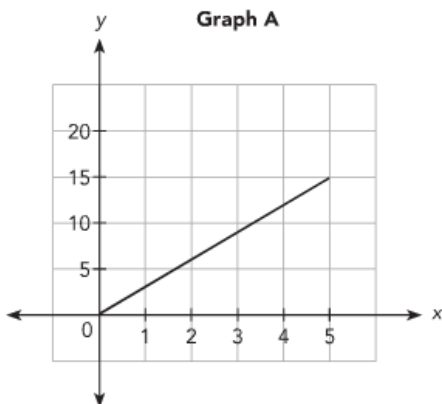
3



4



5.) Jason says that the line in Graph B has a greater slope than the line in Graph A because it is steeper. What error is Jason making? Justify your answer.



6.) Think of an example of a rate that you use or hear about in your every day life. Make sure to include appropriate units.

- 7.) Bob graphs a vertical line through the points (5,2) and (5,5). He says the slope of the line is $\frac{3}{0}$. What error is he making?

Find the slope of the line passing through each of the following pairs of points.

- 8.) (-10,3) and (0,3) 9.) (5,-2) and (2,-5)

- 10.) (2,3) and (9,7)



- 11.) (4,4) and (4,-2)

Determine the value of r so the line that passes through each pair of points has the given slope.

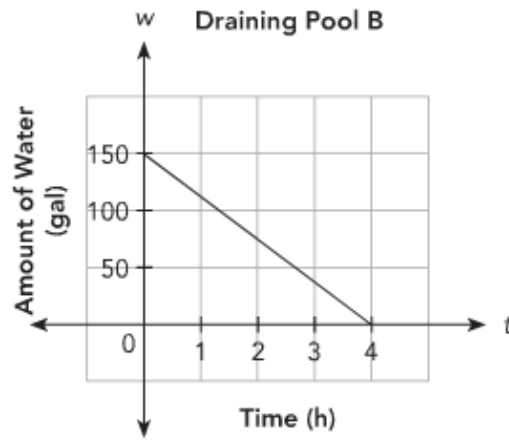
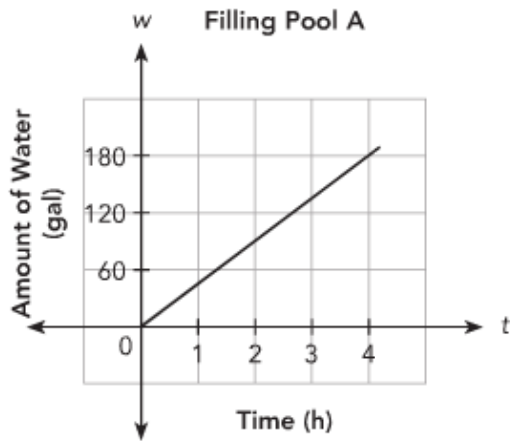
12.) $(5,r) \& (2,-3), m = \frac{4}{3}$

13.) $(5,2) \& (r,14), m = -\frac{4}{5}$

- 14.) Two points have the same x -coordinates but different y -coordinates. Make a prediction about the slope of a line drawn through the points. Justify your prediction.
- 15.) Two points have the same y -coordinates but different x -coordinates. Make a prediction about the slope of a line drawn through the points. Justify your prediction.

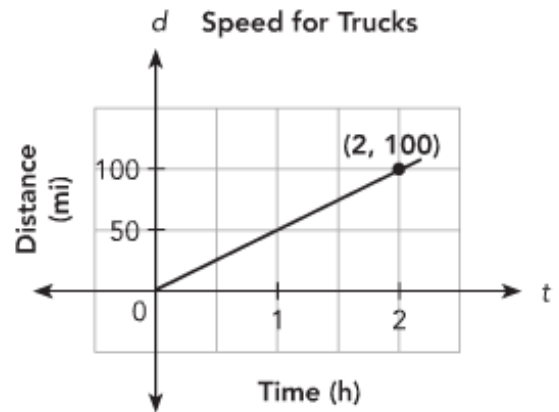
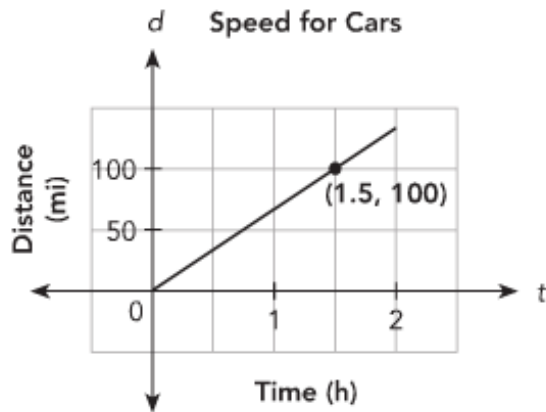
- 16.) In the Fahrenheit system, water freezes at 32°F and boils at 212°F . In the Celsius system, water freezes at 0°C and boils at 100°C .
- Translate the verbal description into a pair of points in the form (temperature in $^{\circ}\text{C}$, temperature in $^{\circ}\text{F}$).
 - Find the slope of the line passing through the pair of points in part a.
 - Suppose the temperature in a room goes up by 5°C . By how much does the temperature go up in degrees Fahrenheit? Explain.

- 17.) The graphs represent the amount of water, w , in pool A over time, t , and the amount of water, w , left in pool B over time, t .



- Find the slope of the line graph for pool A. What does it represent?
- Find the slope of the line graph for pool B. What does it represent?

- 18.) The graphs give information about the distance, d miles, traveled over time, t hours, by cars and trucks on a California highway. Which speed is lower?

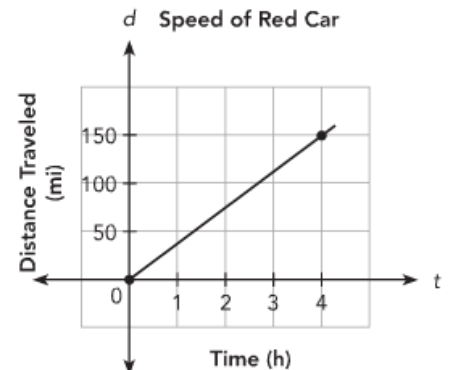


- 19.) Determine the slope of the line that passes through (5,7) and (1,5).

- 20.) Determine the value of r so that the line that passes through (3,4) and $(r,8)$ has a slope of $\frac{4}{7}$.

- 21.) A red car and a blue car leave the same garage at the same time. Each drive drives at a steady rate. The graph represents the distance, d miles, traveled by the red car over time, t hours. The blue car traveled 140 miles over the same length of time.

a.) At what speed is the red car traveling?



b.) At what speed is the blue car traveling?

- c.) Suppose you graph a line showing the distance traveled by the blue car after t hours on the same coordinate plane as the one showing the distance traveled by the red car after t hours. Would the blue car's graph be steeper or gentler than the red car's graph?