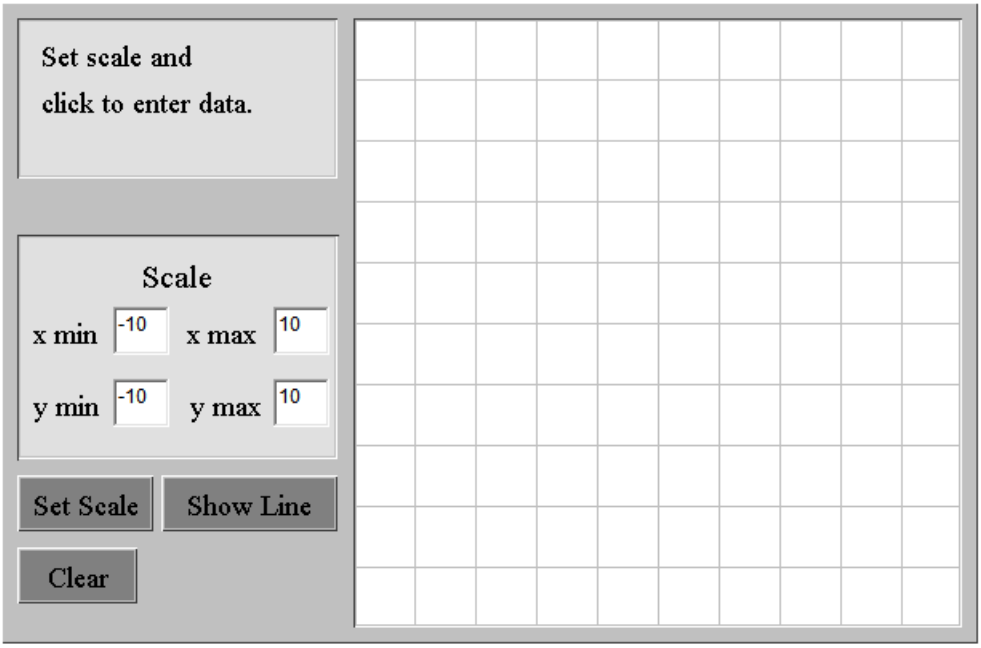
Name:

Period:

Plot one point on the graph and then click **Show Line**. Why do you think a line is not graphed?

Clear the graph and plot two points that have whole-number coordinates.



Point 1:

Point 2:

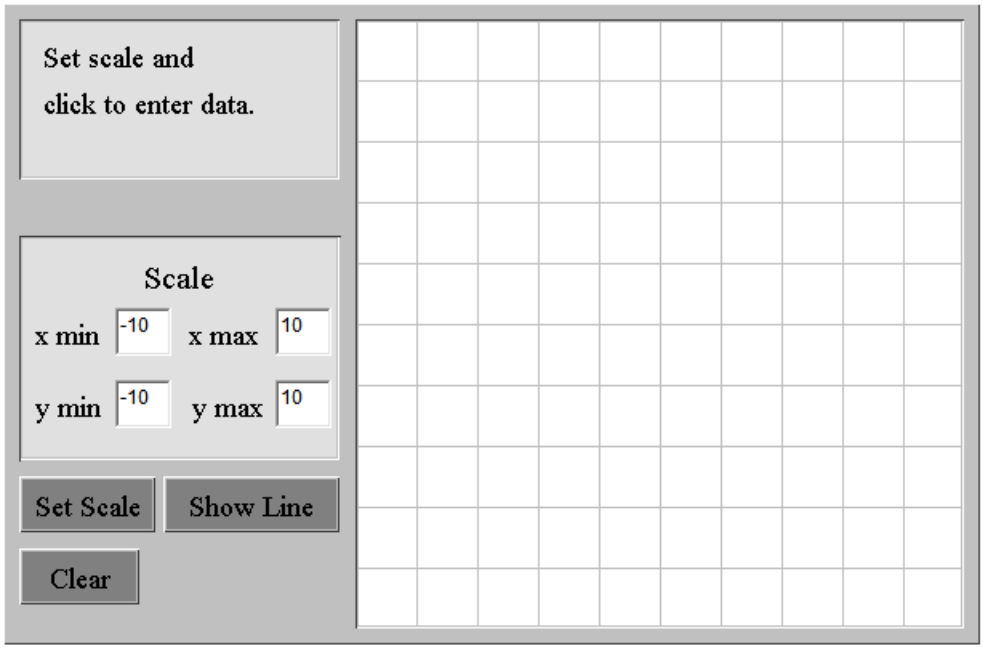
- Find an equation for the line through these two points.

- Click **Show Line**. Compare the equation for the line drawn to the equation that you calculated. Explain and resolve any differences.

Clear the graph and plot three points. Think about a line that "fits" these three points as closely as possible.

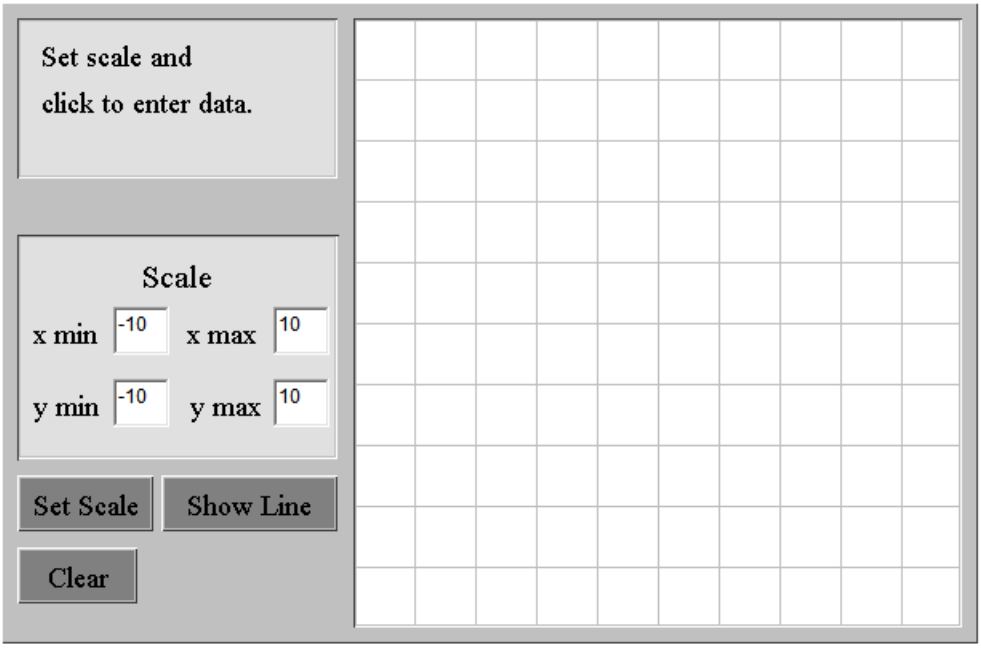
- Is it possible for a single straight line to contain all three of the points you plotted?

- On a piece of paper, plot these same three points, and sketch a line that you think best fits the three points.



- Click **Show Line**. Do you think that the line graphed fits the points well? How does it compare to the line you drew?

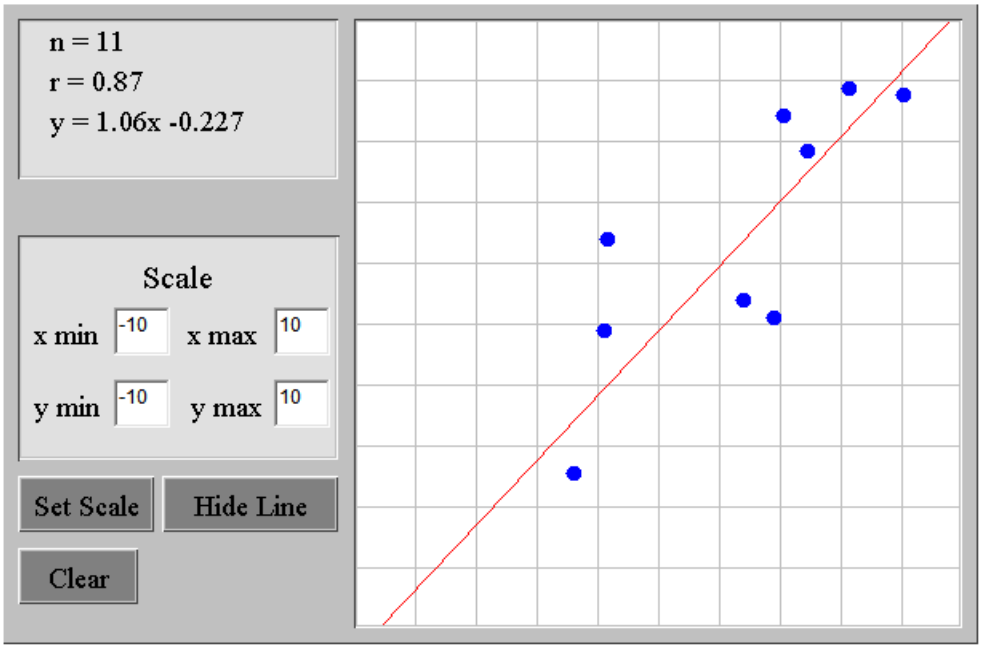
Clear the graph. Place several points on the graph that lie roughly in a straight line, then hit **Show Line**. The line that appears is the *regression line*, which is sometimes known as the "line of best fit."



- What is the *r*-value for the line?

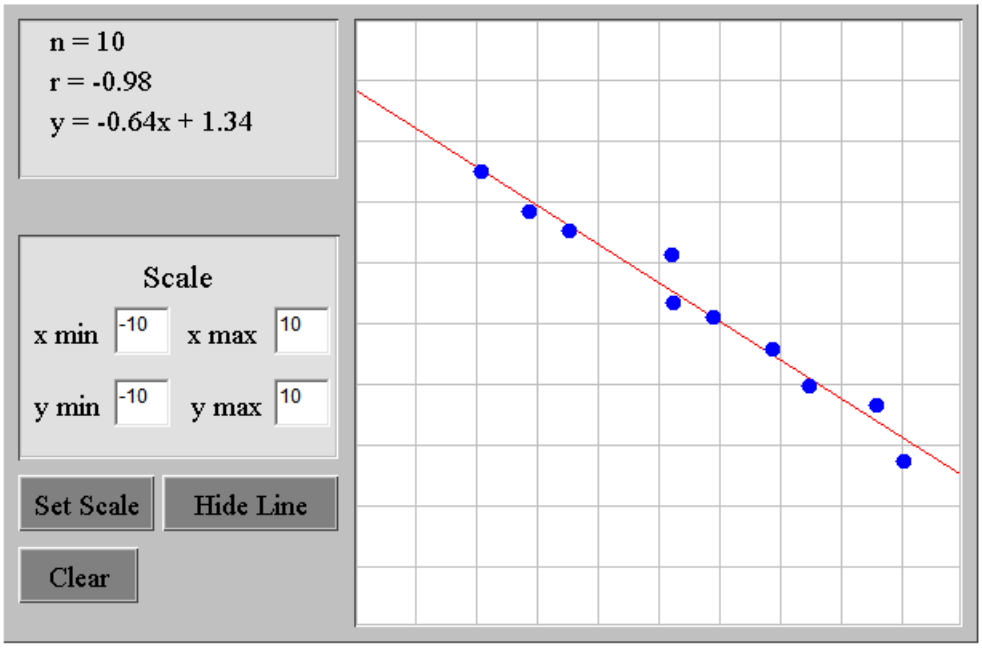
- Place just one additional point on the graph that lies far away from the line. What effect does this point have on the *r*-value? What effect does it have on the line of best fit?

- Move several of the points. How does the *r*-value and line change as points are moved?



Are these data positively correlated, negatively correlated, or show no correlation? How can you tell?

Are these data strongly correlated, or weakly correlated? How can you tell?



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Are these data strongly correlated, or weakly correlated? How can you tell?