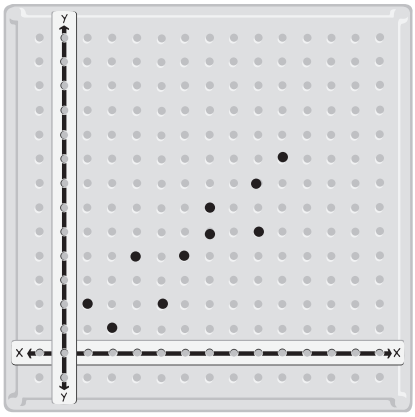
Name _____

Use an XY Coordinate Pegboard to model the scatter plot shown. Write the ordered pairs that are graphed. Identify a correlation as positive or negative. Explain your answer.

1.



x	1	2	3	4	5	6	6	8	8	9
y										

This scatter plot shows a _____ correlation.

_____

_____

Using an XY Coordinate Pegboard, model the data given in the table. Does the scatter plot show a positive or negative correlation? Explain.

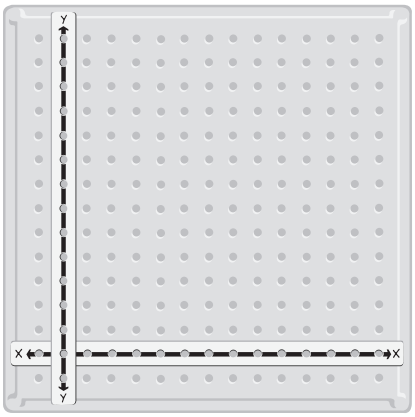
2.

x	1	2	3	4	5	7	9
y	8	5	5	6	3	2	1

This scatter plot shows a _____ correlation.

_____

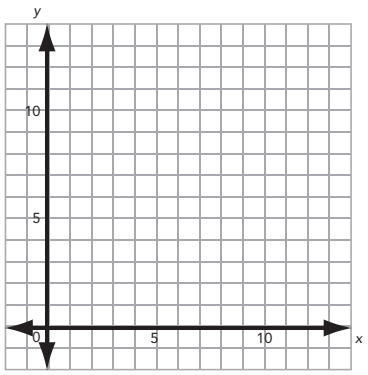
_____



Graph each set of ordered pairs. What type of correlation is shown?

3.

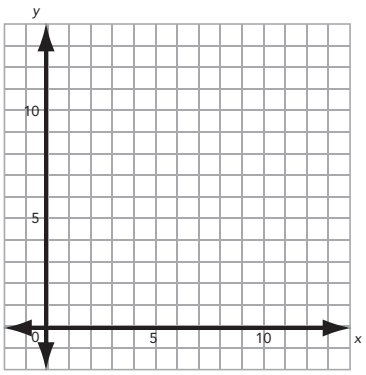
x	1	3	5	6	10	12
y	13	11	6	4	3	1



_____

4.

x	4	5	8	9	11	12
y	3	3	8	9	10	14



_____

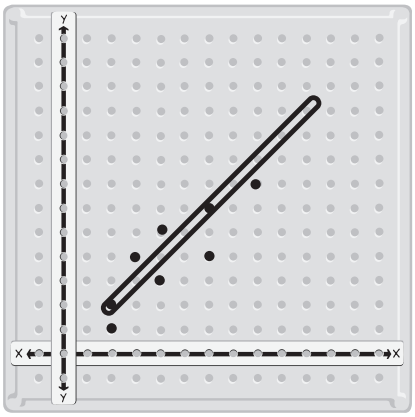
Name _____

Challenge! Describe the appearance of a scatter plot that shows a negative correlation. What does a negative correlation mean in terms of the *x*- and *y*-values? Describe the appearance of a scatter plot that shows a positive correlation. What does a positive correlation mean in terms of the *x*- and *y*-values?

Name _____

Use an XY Coordinate Pegboard to model the scatter plot shown. Write the equation for the line of best fit in the form $y = mx + b$.

1.



If the line extended to the *y*-axis, where would it intersect? _____

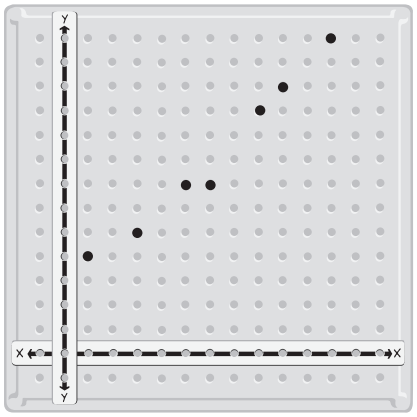
What is the slope of the line? _____

The equation for the line of best fit is

_____.

Using an XY Coordinate Pegboard, model the scatter plot shown. Write the equation for the line of best fit in the form $y = mx + b$.

2.



For the line of best fit, b = _____ .

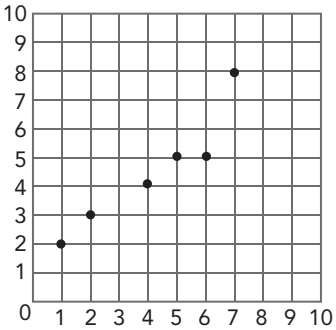
For the line of best fit, m = _____ .

The equation for the line of best fit is

_____ .

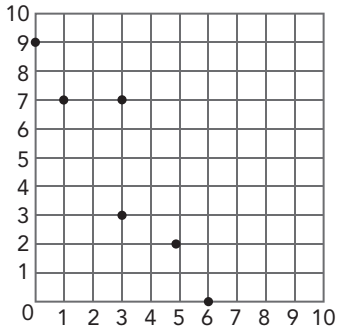
Write the equation for the line of best fit for each scatter plot.

3.



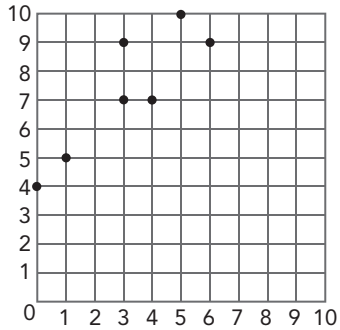
_____

4.



_____

5.



_____

Name _____

Challenge! How can you tell from looking at the points in a scatter plot if the line of best fit has a positive or negative slope? Draw a picture to help.

Name _____

Use an XY Coordinate Pegboard to plot the points and create a scatter plot. Find the line of best fit on your pegboard. Sketch the line of best fit.

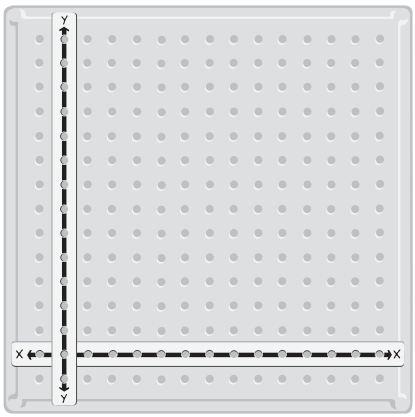
1.

x	*y*
1	2
3	4
4	3
6	4
6	6
8	9

Using an XY Coordinate Pegboard, plot the data in the table. Find the line of best fit. Make predictions to complete the table.

2.

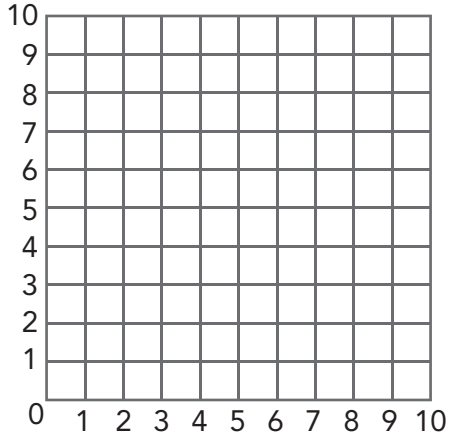
x	*y*
2	1
4	3
5	5
6	4
7	6
8	7



Make a scatter plot of the data. Find the line of best fit. Make predictions to complete the table.

3.

x	*y*
1	2
3	2
4	4
5	6
8	8
10	10



Name _____

Challenge! How do you decide where to place the line of best fit? Can there be more than one line of best fit? Explain.