

Studying Scatter Plots

Part I

Create the graphs for each chart.

1.

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

2.

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

3.

x	1	2	3	4	5	6
y	8	1	5	9	0	4

Part II

1.

Create a scatter plot for this data, decide the type of correlations, and if there is a correlation, graph a line of best fit. From your line of best fit, predict the value of y that matches with $x = 10$.

x	1	2	2.5	3	4	4.5
y	3	6	5	6	9	10

2.

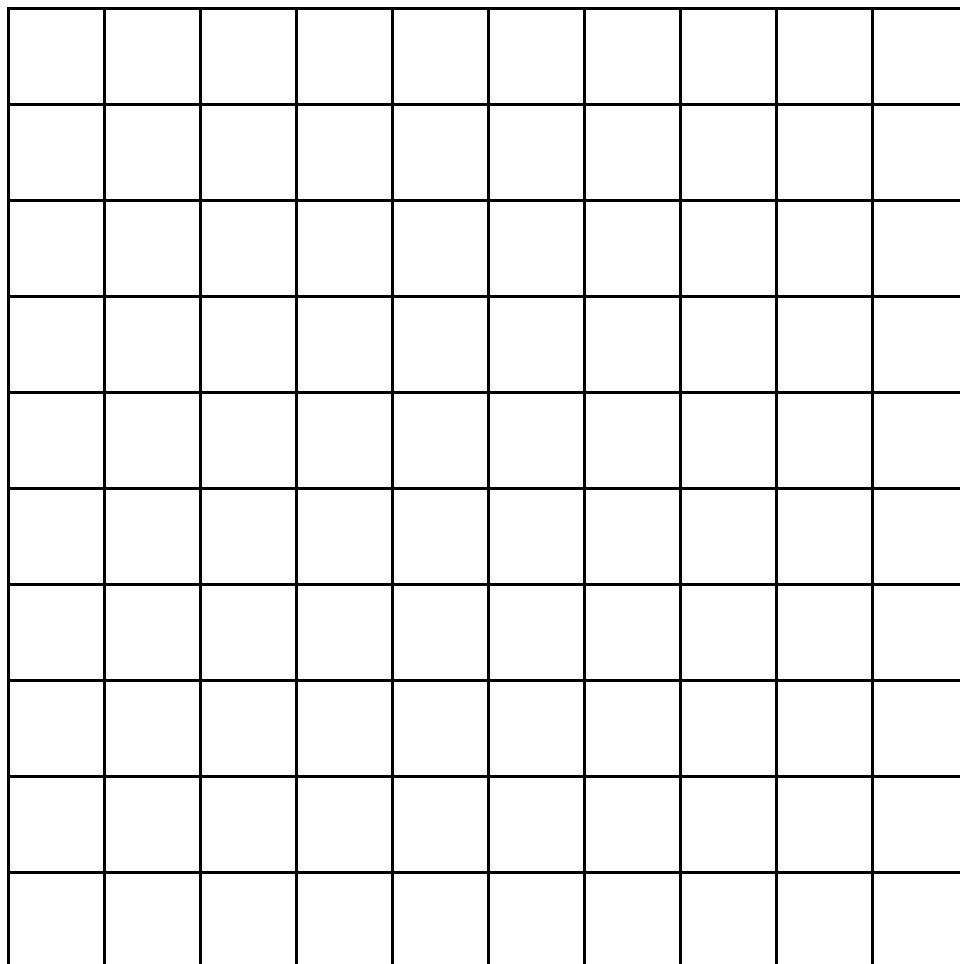
Create a scatter plot for this data, decide the type of correlations, and if there is a correlation, graph a line of best fit. From your line of best fit, predict the value of y that matches with $x = 7$.

x	0	2	3	4	6	8
y	10	9	8	9	7.5	6

3.

Create a scatter plot for this data, decide the type of correlations, and if there is a correlation, graph a line of best fit. From your line of best fit, predict the value of y that matches with $x = 8$.

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



Real-World Problem

Allison runs to the gym from home and burns 215 calories during the run. Then over the next hour (60 minutes) she continues to burn calories at the gym by using the various equipment. The calories she burned, while at the gym are recorded in the chart.

Pedaling time (min)	0	1	2	20	30	45	60
Total Calories burned	215	220	225	300	335	405	460

Create a scatter plot of the pedaling time vs. total calories burned.

Draw a line of best fit for the data.

Write an equation for your line of best fit.

Use your line to predict how many calories she would burn in 25 minutes.

Use your line to predict how long she had to work at the gym to burn 250 calories.

