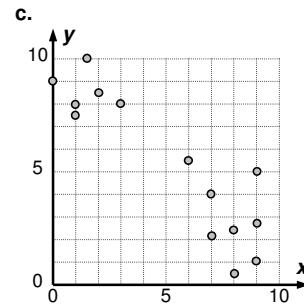
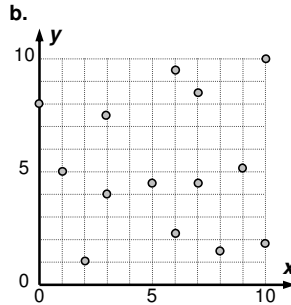
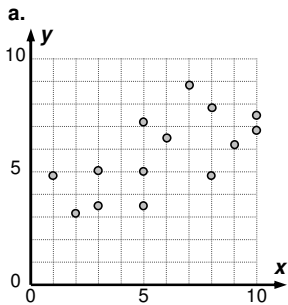


Scatter Plots

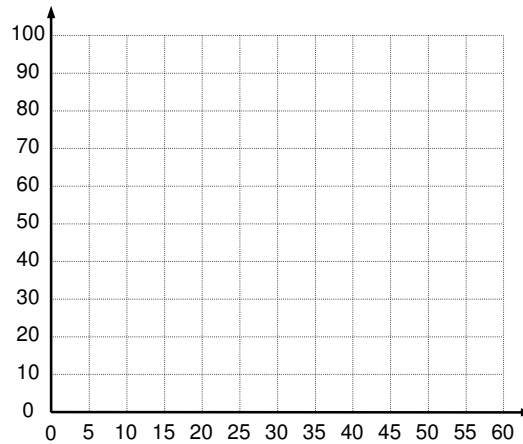
1. Does the scatter plot show a correlation (relationship) between x and y ?
If so, draw a trend line. If not, explain how you know.



2. Zack wants to know if studying for the unit test actually helped. He surveyed students in his class.

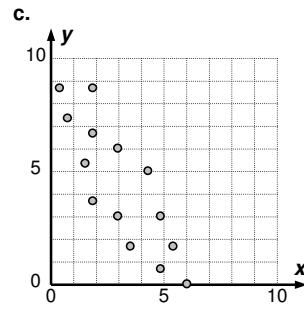
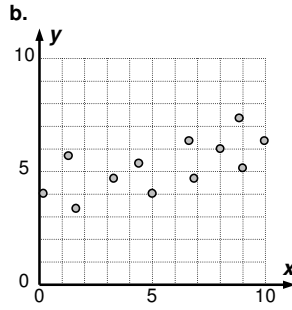
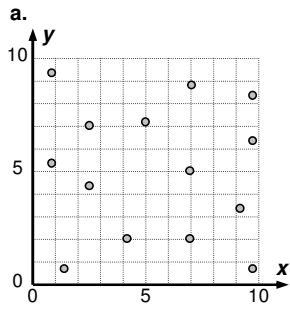
- a. Make a scatter plot for his data. Be sure to include all necessary parts.

Study Time (min)	Unit Test Scores
0	36
0	29
28	57
30	74
35	68
35	75
40	77
45	70
50	85
50	90
57	91
60	100



- b. Use a ruler to draw in a trend line.
- c. Is there a correlation (relationship) between study time and unit test score? Explain.
- d. Find the y -intercept of your line.
Find the slope of your line (as a decimal). Show your work.
Write an equation for your trend line.
- e. Suppose you want to know the test score of a student who studied for 17 minutes.
Use your trend line to estimate the score. Show your work.
- f. Suppose you want to know the study time for a student with a score of 80.
Use your equation to estimate the score. Show your work.

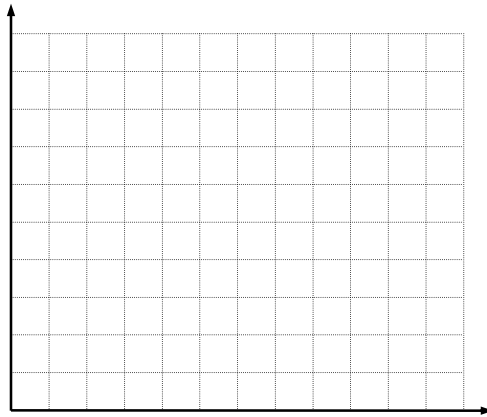
3. Does the scatter plot show a correlation (relationship) between x and y ?
If so, draw a trend line and write an equation for the line. If not, explain how you know.



4. Kelly wanted to know if there is a relationship between missing work and math quiz scores. She surveyed students in her class and put the data in the table below.

- a. Make a scatter plot for her data. Be sure to include all necessary parts.

Missing Assignments	Math Quiz Scores
0	35
1	35
2	31
3	33
3	25
4	25
5	27
5	18
6	22
11	12
12	5



- b. Use a ruler to draw in a trend line.
- c. Is there a correlation (relationship) between study time and unit test score? Explain.

- d. Find the y -intercept of your line.

Find the slope of your line (show your work).

Write an equation for your trend line.

- e. Suppose you want to know the quiz score of a student who has 10 missing assignments. Estimate the quiz score in two ways – using your equation and using your trend line.

- f. Suppose you want to know the number of missing assignments that a student with a score of 20 has. Estimate the number in two ways – using your equation and using your trend line.