10.1 CW on Scatter Plots, r, & Line of Best Fit

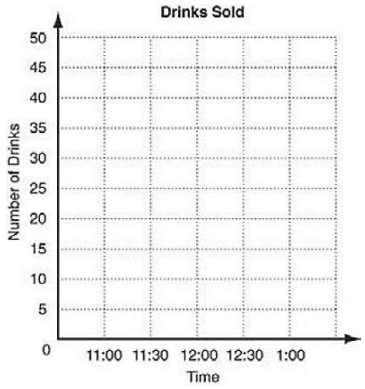
Name_____

Date_____Period_____

Graph a scatter plot and find the correlation.

1. The table shows the number of juice drinks sold at a small restaurant from 11:00 am to 1:00 pm. Graph a scatter plot using the given data.

Time	11:00	11:30	12:00	12:30	1:00
Number of Drinks	20	29	34	49	44

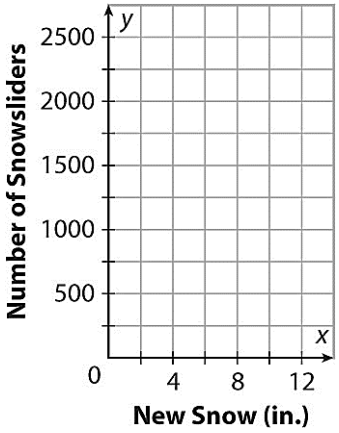


2. Name the two variables. _____

3. Write *positive*, *negative*, or *none* to describe the correlation illustrated by the scatter plot you drew in problem 1. Estimate the value of the correlation coefficient, *r*. Indicate whether *r* is closer to –1, –0.5, 0, 0.5, or 1. _____

4. The number of snowboarders and skiers at a resort per day and the amount of new snow the resort reported that morning are shown in the table.

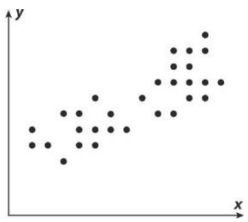
Amount of New Snow (in inches)	2	4	6	8	10
Number of Snowsliders	1146	1556	1976	2395	2490



a. Make a scatterplot of the data.

b. Draw a line of best fit for the graph above.

For 5-8, Write *positive, negative,* or *none* to describe the correlation in each scatter plot. Estimate the correlation coefficient for each scatter plot as –1, –0.5, 0, 0.5, or 1.

5. 

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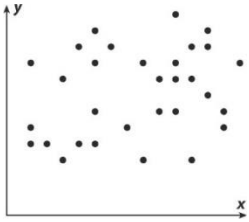
6. 

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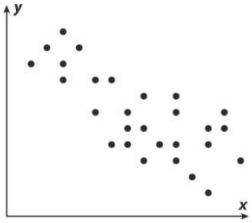
7. 

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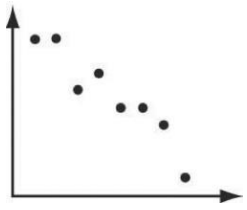
8. 

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State whether you would expect positive, negative, or no correlation between the two data sets.

9. temperature and ice cream sales

_____

10. a person's age and their mobility and quickness

_____

11. the month of a person's birth and the time it takes to run a mile _____