Name _____ Date _____ Class _____

LESSON 10-1

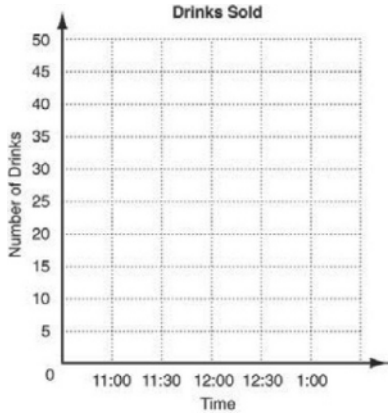
Scatter Plots and Trend Lines

Practice and Problem Solving: A/B

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.

_____

A city collected data on the amount of ice cream sold in the city each day and the amount of suntan lotion sold at a nearby beach each day.

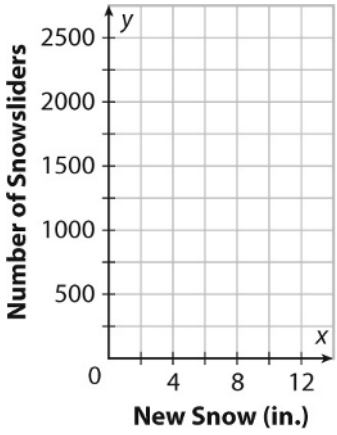
4. Do you think there is causation between the city's two variables? If so, how? If not, is there a third variable involved? Explain.

_____

Solve.

5. 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 fit on the graph above and find the equation for the linear model. _____

   c. If the resort reports 15 inches of new snow, how many skiers and snowboarders would you expect to be at the resort that day?

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