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## Unit 16 Statistics Quiz Reviewb

## Correlation \& Causation of Scatter Plots

Identify the following scatter plots as a linear positive, linear negative, exponential growth, exponential decay, or no correlation.


3.

4.


## Interpreting Linear Equations

5. The following graph describes the cost of renting a car. After studying the graph, answer the following questions.

a) What is the y-intercept?
b) What is the slope?
c) What does the y-intercept mean in context?
d) What does the slope mean in context?
e) Write the linear equation.

Calculator - Lines of Best Fit \& Correlation Coefficient
6. Find the linear line of best fit for the following table:

| Total Fat $(x)$ | 0 | 9 | 13 | 21 | 30 | 36 | 42 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total Calories $(y)$ | 0 | 260 | 320 | 425 | 452 | 463 | 550 |

Equation: $\qquad$
7. Find the exponential line of best fit for the following table:

| $x$ | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $y$ | $1 / 9$ | $1 / 3$ | 1 | 3 | 9 | 27 | 81 |

Equation: $\qquad$
8. What does a correlation coefficient of -1 mean a positive or negative correlation? Is it a strong or weak relationship?

