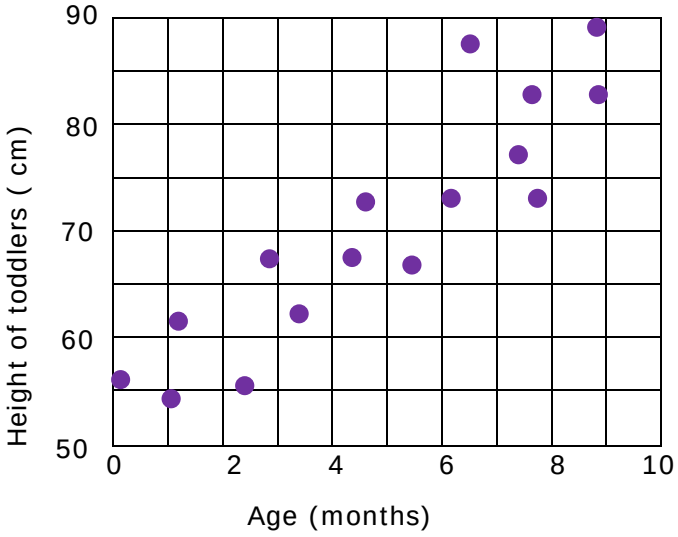
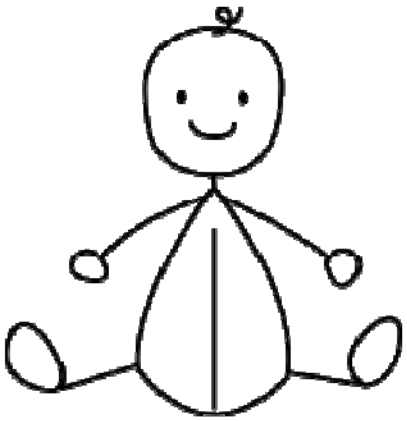
Name _____ Date _____

Correlation vs. Causation Worksheet - Step-by-Step Lesson

The following graph depicts the relationship between the height of toddlers and their age in months.





a. What type of correlation does this data represent?

b. What correlation do you infer about the relationship between height and age of toddlers?

c. Is it possible to conclude that the older toddlers are, the more you will grow? Explain why or why not.

Explanation:

Correlation is a way to represent affinity and volume of a linear relationship between two variables. You can use a scatter plot to graphically represent this data to physically see the different types and values of correlations.

Causation is a link between variables so that a change in one variable is believed to produce the change in the other variable.

Correlation between two variables does not necessarily imply causation.

Looking at the graph, we can clearly see a positive correlation because data represents a positive pattern with increase in x – value the y – values also increases.

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b. The data shows there is a correlation between the height and age of the toddlers. The relationship shows that, in general, the height of toddlers increase with their age.

c. Yes. The height of toddlers increases as they grow in age. This only shows a correlation in this data set. You need to realize that this only defines the test subjects; this does not have a general application. For instance you will not grow forever.