MAP 4CI   3.5 Analysis and Conclusions   Date:_____

Cause and Effect Relationship_____

_____

Eg._____

1. For each independent variable, identify a dependent variable that might form a cause and
   effect relationship.
   a) The amount of time students study for an exam.

   b) The cost of gasoline sold.

   c) The amount of space used to display a product in a store.

   d) The amount of time a person exercises per week.

   e) The average number of cars driven in a city per day.

Regression Analysis _____

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Errors in Analysis occur when:
   1. There is too little data.
   2. Using linear regression (line of best fit) for a non-linear relation.
   3. Using linear regression (line of best fit) when the correlation is weak.
   4. Reversing the cause and effect relationship.
   5. Extrapolating outside the range of the data set.
   6. Not considering the effects of outliers or influential points.

A high correlation for a data set does not always indicate a cause and effect relationship between
two variables. Often, more data and analysis are needed to prove such a relationship exists.

U3D9 HOMEWORK: Pg 186 # 1 – 4   Use: desmos.com/calculator for # 5, 6