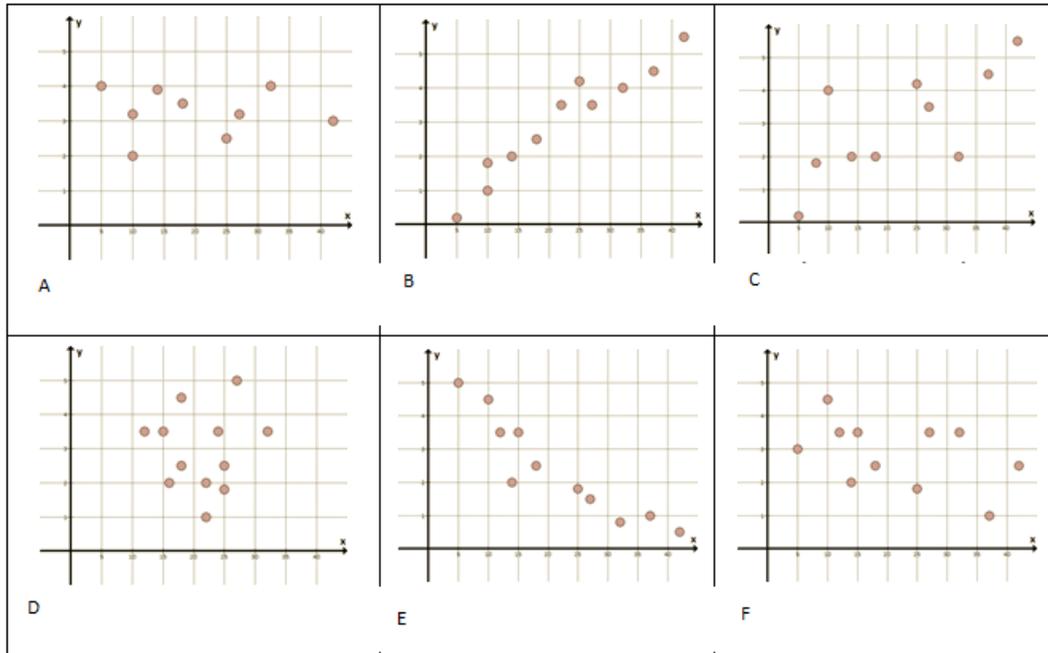


## Modeling HW 6: Recognizing Correlation

Below are 6 data sets that have been graphed as scatterplots.



1. (4 points) Give the letter of the graph that best fits each description:

- \_\_\_\_\_ This graph shows data with a strong positive correlation.
- \_\_\_\_\_ This graph shows data with a strong negative correlation.
- \_\_\_\_\_ This graph shows data that doesn't seem to be correlated at all.
- \_\_\_\_\_ This graph shows data with positive correlation, but it's not very strong.

2. (1 point) Which would be *more likely* to have a positive correlation?

**Time spent on homework and Grade in class**

**Age and Grade in class**

3. (1 point) Which would be more likely to have a negative correlation?

**Amount of rain and Umbrella sales**

**Temperature and Cost to heat house**

4. **(2 points)** One thing that is likely to have a **positive** correlation with household income is “number of vacations a family takes per year”. Name two **other** things that are likely to have a **positive** correlation with household income. (These should also be things that can be expressed with numbers.)
  
5. **(1 point)** Name one thing that is likely to have a **negative** correlation with household income (also expressed with numbers).
  
6. **(1 point)** Name one thing that is likely to have **no** correlation with household income (again, expressed with numbers).