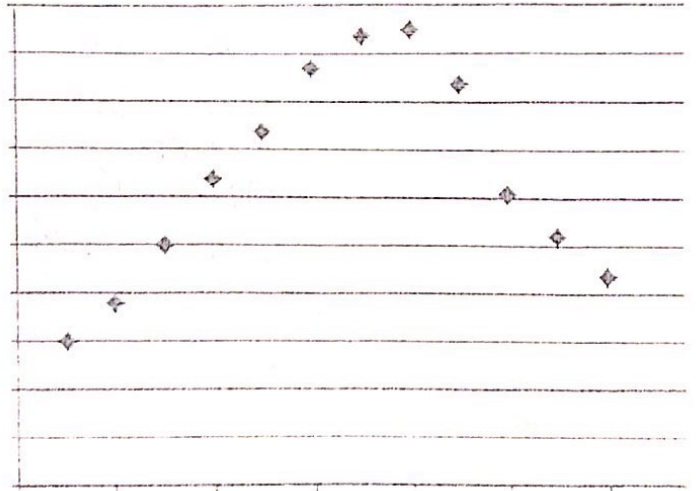


Name: _____ Date: _____ Hour: _____

Unit 2 Day 4 and 5: Scatterplots

Focus Question: What should I include when I make a graph?

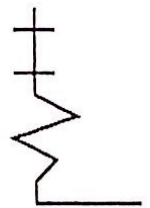


A. Parts of a Good Graph

1. What is the graph at the right about?
2. What should be added to the graph?

B. Vocabulary

1. The x axis is reserved for the **independent variable**. This is the variable that is in control. In science it is the variable that you are changing on purpose. (**I** change it or **In** control)
2. The y axis is reserved for the **dependent variable**. This is the variable that is being studied. It changes based on the independent variable. It depends on the independent variable.
3. Scatterplots represent **discrete data**. This means that only certain countable values are possible. For example, there can be 6 students or 7 students in a group, there cannot be 6.5 students in a group. Thus, it is only represented by points.
4. **Scaling** is how the numbers on the x and y axis are presented. You should count by the same interval on an axis, but the scaling does not have to be the same on each axis. For example, it is okay for the x axis to increase by 2's and the y axis to increase by 10's. Each space between the numbers should represent the same amount of numbers.
5. Occasionally you may have data that has a large gap between zero and where the data starts. In this case you can have a "**break**" in the graph. It is done as shown in the picture at right. It can **ONLY** be at the beginning of a graph, not in the middle of data.



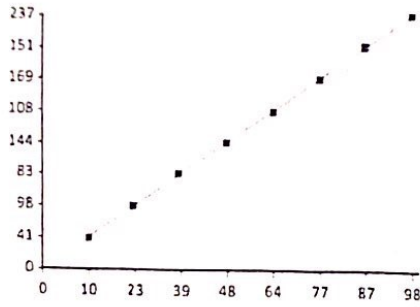
A good graph is able to "stand alone." No one should have any questions about what was studied and **it should not mislead you**. The title should use both the independent and dependent variables and use the word "effect" or "affect" depending on how you phrase it.

Good Title: "The Effect of Mass on Distance Traveled"
or
"How Distance Traveled is Affected by Mass"

Bad Title: Does Mass Matter?

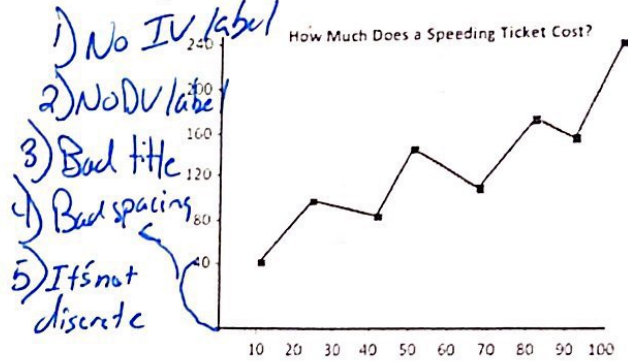
C. What's wrong with the graph practice

1. List all the things that are wrong with the graph.

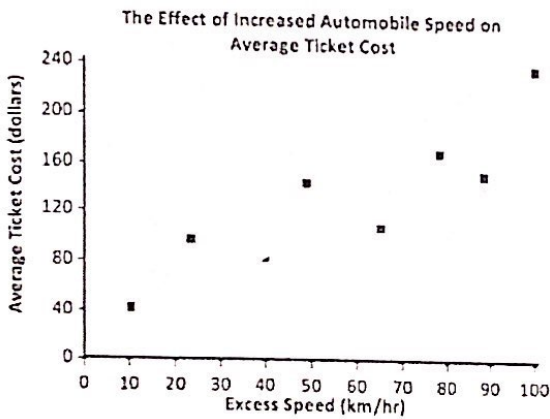


- 1) No IV label
- 2) No DV label
- 3) No Title
- 4) No scaling
- 5) It's not discrete

2. Improved, but the issues are still...



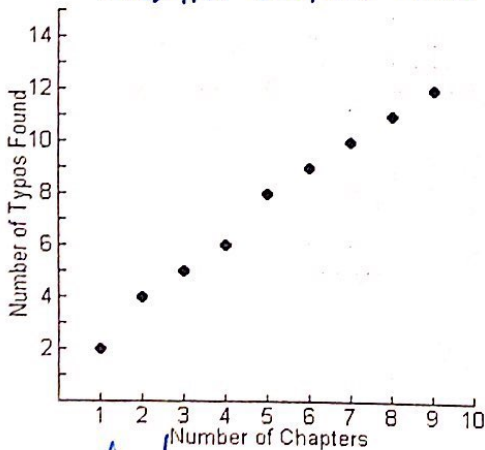
3. The graph below is a good scatterplot. What makes it great?



- It's discrete
- Has Title and labels

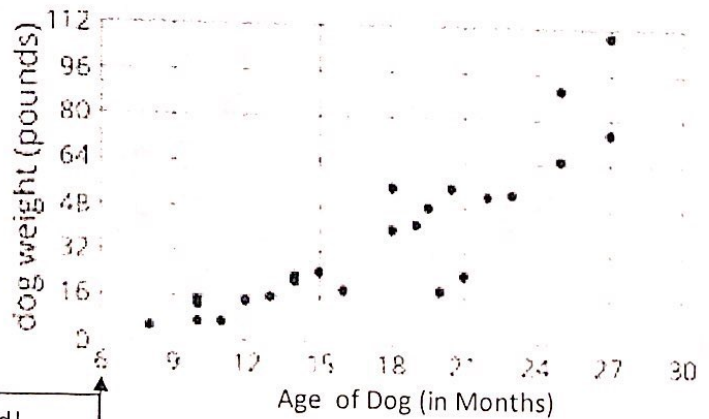
D. For the graphs below, identify the IV and DV, then give a good title.

Does # of chapters affect # of Typos found



IV: # of chapters
 DV: # of Typos

The effect of dog age on dog weight



IV: Age of Dog
 DV: dog weight

This is bad!
 Don't do this!
 Use a
Break

Day 5: You will make a scatter plot based on data you receive from the teacher.