

# Developing a New Product: Basic Steps

Determine the purpose of the product.

Names \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Determine who would use the product.

Determine where you would place the product for sale, and why.

Determine your methods of advertising, and design ads to attract customers.

## Marketing/Survey Project (20pts)

1. Product Brainstorm (3pts)
  - a) List of group ideas for product (with one selected)
  
2. Survey (7pts)
  - a) 10 questions, at least 5 of which must be open ended.
  - b) Survey at least 50 people
  - c) Graphical representation of each questions results
  
3. Poster (10pts)
  - a) Pleasant looking advertisement for your product
  - b) Must include a slogan for your product
  - c) Must include one or more *relevant* graphs from your survey.
  - d) Graph labeled to make sense for your advertisement

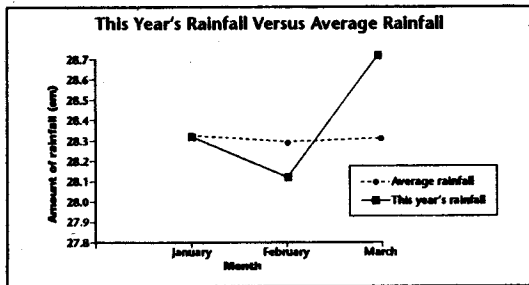
**COMMUNICATING SKILLS**

**Recognizing Bias in Graphs**

Graphs can be used to display your data at a glance. However, graphs can distort your results if you are not careful. The picture that results may not be objective, or without bias or distortion. Look at the first graph.

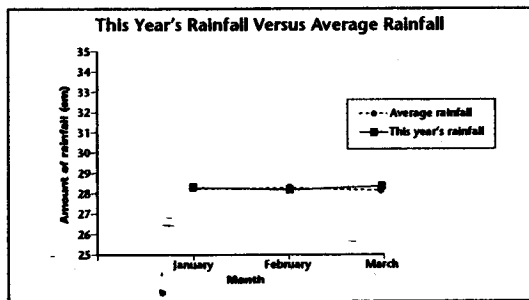
**How Much Rain Really Fell?**

In the graph below, it appears as though March had drastically more rainfall compared with an average month. But did that really happen?



Wait! March's rainfall was only 0.4 cm above average. On the graph, that looks like a large increase. On the ground, a 0.4 cm increase is not that much. This graph is *biased* because it exaggerates the difference between the two lines. Because the interval between 27.8 cm to 28.7 cm on the y-axis is so small, the difference in rainfall seems very large and noticeable.

If you increase the interval between numbers on the y-axis, the scale becomes larger. That makes the difference between the two lines smaller, as shown below.



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**Recognizing Bias in Graphs, continued**

Refer to the graphs on the previous page to answer the following questions:

1. What is the range of values on the y-axis in the second graph?

\_\_\_\_\_

2. How does the difference between the two lines in the second graph compare with the difference between the two lines in the first graph? Which graph is a more accurate picture of the data? Explain.

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**A Matter of Scale**

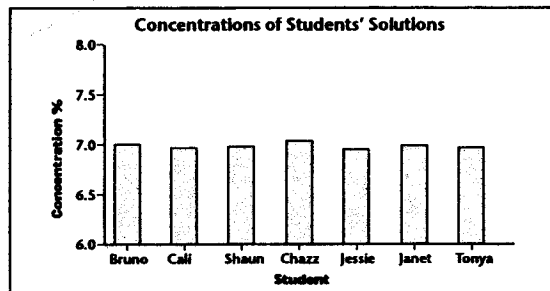
Here is another example of how the choice of the scale can alter a graph.

In an experiment, seven students tried to mix a solution of salt water so that its concentration would be exactly 7.00%. When the teacher tested the concentration of their solutions, he got the following results:

**Concentrations of Students' Solutions**

Name	Bruno	Cali	Shaun	Chazz	Jessie	Janet	Tonya
Concentration	7.02%	6.99%	7.00%	7.08%	6.97%	7.01%	6.99%

The teacher created the following graph to show the students' results:



Does this graph give you a clear picture of how the concentrations varied? Not really. The bars look so much alike that it's hard to tell the differences between them.