

Remember, I am always looking to for the following:

1. That you are responding to all parts of the question or statement.
2. That you are using the language of psychology.
3. That you both define and give an example, where appropriate, of each of the terms and ideas that you use, as well as how it applies to the original question or statement.
4. You must write in complete sentences.

I. A) Change the following theory into a complete hypothesis:

"An apple a day keeps the doctor away."

**Many possible answers;**

**Exercise will improve memory**

B) Explain what elements make this into a hypothesis.

**Hypothesis: A testable prediction derived from a theory. It is now a testable prediction, w/ an experimental factor that can be measured**

II. A) In the following hypothesis, what are the INDEPENDENT VARIABLE and the DEPENDENT VARIABLE?

"Children who watch Sesame Street develop greater reading ability than children who watch cartoons."

**Independent Variable: The factor that can be manipulated and experimented with TV program watching [Sesame St. vs. cartoons]**

**Dependent Variable: The factor being measured by the investigator.**

**Reading ability**

B) Explain why your choices are correct.

**By doing a reading measure between a cartoon group and Sesame St. group, before and after the experimental period, we can see if this factor may have made a difference.**

**TV watching can be manipulated/experimented with while reading outcomes can be measured and compared.**

III. In the following hypothesis, explain the purpose of the control group, what they might be doing and how we would use them to test this hypothesis.

"People who eat a quart of chocolate ice cream every day for a month will lose weight at the end of that month."

**This hypothesis would allow us to study and compare two groups; one group [experimental] would be the ice cream consumer, while we would also need a control group that is not exposed to the experimental factor. We could then compare pre and post information and results after the experimental period.**

IV. You decide to make all of the students at Casa Grande High School the population of an experiment. You needed to gather a random sample of this population. You decided to make the sample by including the same percentages of many groups, that is, by gender, by language and by ethnic background.

A) Would this be the best way to establish the random sample?

B) EXPLAIN YOUR REASONING.

C) Include a definition of RANDOM SAMPLE.

**The problem suggests that the sample be a reflection of the population; this would be considered a unrepresentative [non-random] sample, because each participant did not have an equal chance of participating.**

You can survey a representative sample of a total population by making a random sample.

**A Random Sample is a sample that fairly represents a selected population because every member of the population has an equal chance of being included.**

**Large representative samples are better than small one, but even a small one is better than an unrepresentative [non-random] one.**

V. Ms. Altieri and Mr. Sovel gave an exam to their favorite class.

The student scores were: 87, 64, 91, 73, 79, 83, 94, 95, 91, 52, 91, 89.

A) What are the answers to the following:

mode \_\_\_\_      mean \_\_\_\_      median \_\_\_\_      range \_\_\_\_

52                      95                                      mean:  $989/12 = 82.42$

64                      94

73                      91                                      mode: 91, 91, 91

79                      91

83                      91                                      range:  $95 - 52 = 43$

87                      89

median: 88.5

B) Which of these statistical measurements would be best to help me understand these results

**Because the range is so great, mean is not useful because it give a skewered result, impacted by the extremely low score;**

**Therefore, the median and mode would be better indicators, especially because they are so close to each other**