

Probability

Assumptions:

A thing that is accepted as true or as certain to happen, without proof: "they made certain assumptions about the market".

- theoretical probability - the actual probability based on possible outcomes.
(There is Math to support it)
- experimental probability - measured through performing trials.
(Supported by pass experience)
- Subjective Probability -To determine probability based on how you feel.

May 21-7:20 PM

Potential Problems with Collecting Data

Bias

The question influences responses in favor of, or against the topic of the data collection.

Ways a survey or sample may be bias:

- 1) Use of language
- 2) Timing
- 3) Privacy
- 4) Cultural Sensitivity
- 5) Time
- 6) Cost
- 7) Ethics

May 23-8:19 AM

Using Samples & Populations to Collect Data

Population - *is the group about which you are getting information*

Census - *is conducted when data is collected from each member of the population*

Sample - *Is when a small portion of the population is used to collect data*

When the sample chosen is REPRESENTATIVE of the population, the data collection provides **VALID CONCLUSIONS**

May 23-8:23 AM

Selecting A Sample

6 Types of Sampling methods

1) SIMPLE RANDOM SAMPLING

Each member of the population has an equal chance of being selected. (Usually valid)

For example, to select a random sample of 5 students from your math class, each student is assigned a number and 5 numbers are drawn from a hat.

2) SYSTEMATIC SAMPLING

Every n^{th} member of the population is selected. (Usually valid if the n^{th} is a true representative of the population)

For example, every 20th product in an assembly line is tested for quality. If the item is destroyed or unusable after begin sampled, than the sample is a destructive sample.

3) CLUSTER SAMPLING

Every member of each randomly chosen group of the population is selected.

For example, each grade represents a group of the school population. One grade in your school is chosen randomly, and all students in that grade are selected.

May 23-8:25 AM

Continued.....

4) SELF-SELECTED SAMPLING

Only members who are interested and volunteer will participate.

For example, if a radio station conducts a telephone survey, only people who are interested will call.

5) CONVENIENCE SAMPLING

Only members of the population who are convenient to include are selected.

For example, for a survey about grocery shopping habits, people in a grocery store are approached and questioned.

6) STRATIFIED RANDOM SAMPLING

Some members from each group of the population are randomly selected.

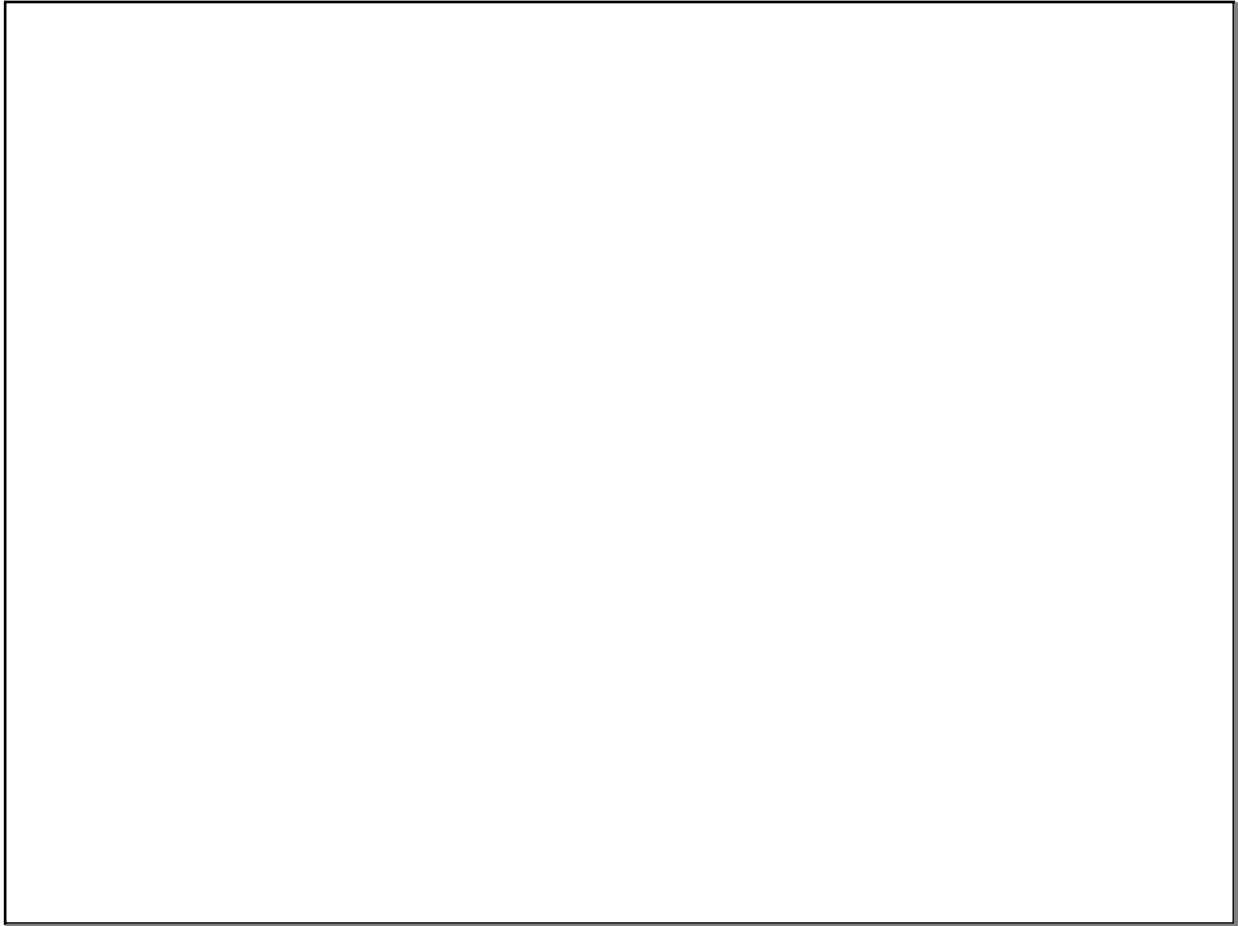
For example, 5 randomly chosen students from each grade in a school could be selected, even if each grade has a different number of students.

May 23-9:33 AM

Class/ Homework

Practice Test
Page 460
All Questions

May 21-7:24 PM



May 27-2:09 PM