Accel Precalc   Notes: Introduction to Statistics   Name _____

Unit #1: Data Analysis

Lesson #4

EQ:

How are statistics used in business?

Profession/Occupation	Purpose
_____	
_____	
_____	

- <u>Statistics</u> – science of conducting _____ to _____, _____, _____, _____, and draw conclusions from data

- ❖ <u>Branches of Statistics:</u>

1. <u>Descriptive</u> – consists of the _____, _____, _____, and _____ of data

2. <u>Inferential</u> - consists of generalizations from _____ to _____; perform _____ and _____ _____; determine _____ among _____; make _____

   ➢ In class: See Example Handout Problem #1 a, b, c

- ❖ What is _____?

<u>Variables</u> – _____or _____ that can assume _____   _____

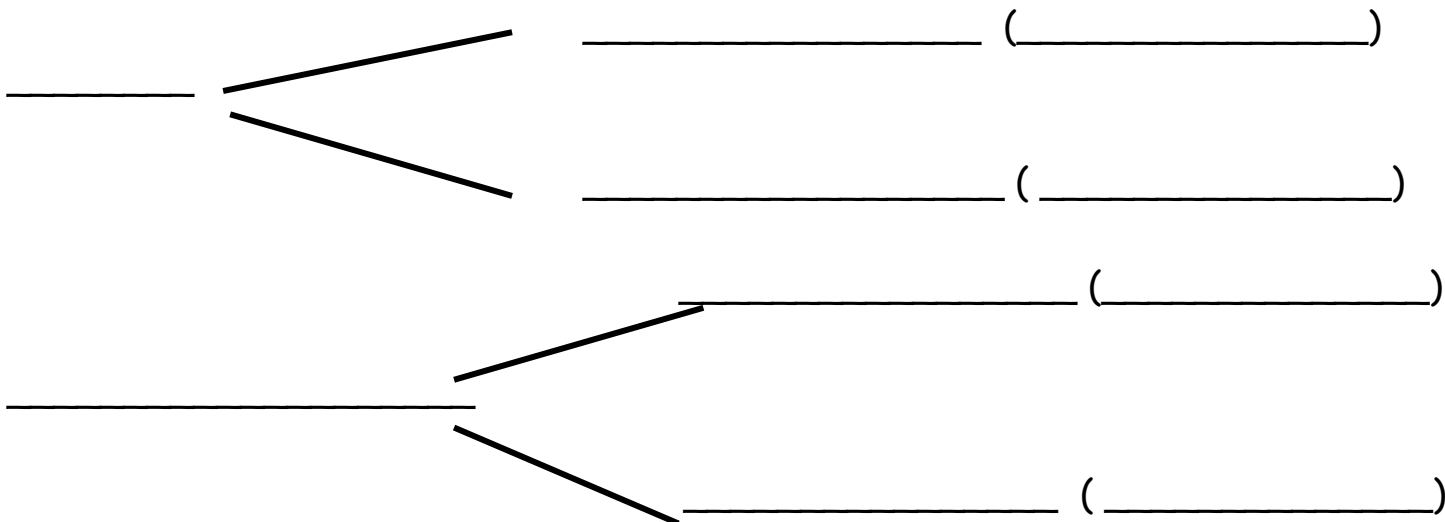Data - values that _____ can assume

Data Sets – collection of _____

Random Variables – variables whose _____ are _____
____ _____

Populations – all _____ being studied

Samples – group of _____ selected from _____

Hypothesis Tests – decision making process for evaluating _____ about a
_____; based on _____ from _____

Two Types of Data:

_____

_____ ⟨ _____ (_____)

_____ (_____)

_____ ⟨ _____ (_____)

_____ (_____)

➤ In Class See Example Handout #3 a, b, c & 4 a, b, c

❖ Types of Sampling Methods:

1. Simple Random Sample - chosen in such a way that every sample of size
_____ has an equal _____ to be selected

2. Random Samples – selected by using _____ methods of
_____ numbers

> In Class See Example Handout #7

3. <u>Systematic Sampling</u> – _____subjects in population; select every ___ subject

4. <u>Stratified Sampling</u> – _____ population into _____ according to a _____ _____ to the study; take a _____ _____ from each _____

5. <u>Cluster Sampling</u> – population divided into _____ (_____); randomly select an _____ _____

***Common grouping method for both_____ and _____ is _____.

6. <u>Convenience Sampling</u> – subjects selected in a _____ manner (mall attendees, first to arrive)

> In Class See Example Handout #5a, b

❖ <u>Type of Statistical Studies:</u>

1. <u>Observational Study</u> – researchers _____ subjects to draw conclusions

2. <u>Experimental Study</u> – some _____ is _____on the _____ by the _____

> In Class See Example Handout #6a

❖ Assignment: Finish Example Handout #1 - 8