

**Day 1 2021**

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|---------------------|---|
| <b>Part I</b>       | <b>Exploring and Understanding Data</b>   |
| <b>Chapter 1</b>    | <b>Stats Starts Here</b>  |
| Statistics is       | a way of reasoning, along with a collection of tools and methods, designed to help us understand the world. |
| Statistics are      | particular calculations made from data.   |
| A statistic is      | A numerical summary of data   |
| Statistics is about |   |
| <b>Chapter 2</b>    | <b>Data</b>   |
| Data are            |   |

Amazon Customer Data (CD Purchases)

| Name      | Ship to State | Price | Area Code | Previous CD Purchase | Gift? | ASIN        | Artist  |
|-----------|---------------|-------|-----------|----------------------|-------|-------------|---------|
| Katie H.  | OH            | 10.99 | 440       | Nashville            | N     | B00000I5Y6  | Kansas  |
| Samuel P. | IL            | 16.99 | 312       | Orange County        | Y     | B000002BK9  | Boston  |
| Chris G.  | MA            | 15.98 | 413       | Bad Blood            | N     | B0000068ZVQ | Chicago |
| Mary D.   | PA            | 11.99 | 717       | Let Go               | N     | B000001OAA  | Garbage |

|  |  |
|--|--|
| The context for data values is provided by _____   | <p>do we care about the data?<br/>         are the individuals described by the data?<br/>         variables do the data contain?</p> <p><b>(Necessary)</b></p>  |
| Three steps to doing Statistics right:   | <ul style="list-style-type: none"> <li>- were you're headed and why ( ).</li> <li>- the mechanics of calculating statistics and making displays.</li> <li>- what you've learned remembering the "4 Cs."</li> </ul> |
| 4 Cs: conclusions are _____  |  |
| Data table   | An arrangement of data in which each _____ represents a _____ and each _____ represents a _____.   |
|  | An individual about whom we have data (row of data table)  |
|  | Object described by a set of data (person, animal, thing, identifier variable)   |
|  | Holds information about the same characteristic for many cases. (column of data table)   |
|  | Places an individual into one of _____   |
|  | _____ some characteristic of each individual.  |
| You must look at the _____ of your study to decide whether to treat it as _____ or _____ | Reports _____ with out _____   |
|  | _____ or other convention often used to protect confidentiality ( _____ with exactly one individual in each category)  |

## Assignment 1

A) Complete the Green Sheet and AP Statistics Course and Exam Guide scavenger hunt in Schoology.

B) Complete the problems below. Then submit a multipage pdf of page 1 and 2 of these notes.

For each description of data, identify the W's, name the variables, specify for each variable whether its use indicates it should be treated as categorical or quantitative, and, for any quantitative variable, identify the units in which it was measured (or note that they were not provided).

C) Read Chapters 1 and 2 of your book. If you don't have a book, a digital copy is available in Schoology.

Example 1) Because of the difficulty of weighing a bear in the woods, researchers caught and measured 54 bears, recording their weight, neck size, length, and sex. They hoped to find a way to estimate weight from the other, more easily determined quantities.

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**This is what answers should look like:**

*Who* –

Cases – Each is a case.

*What* –

*When* –

*Where* –

*Why* – To estimate weight from easier-to-measure variables.

*How* – researchers collected data on 54 bears they were able to catch.

*Variable* –

*Type* –

*Units* – Not Specified.

*Variable* – Neck Size

*Type* – Quantitative

*Units* – Not Specified

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*Variable* – Length

*Type* – Quantitative

*Units* – Not Specified

*Variable* –

*Type* –

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