

MA 2300 Section 2

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Lecture notes for MA 2300 Statistics I, Spring 2005, Section 2

Statistical Data Analysis

Statistical Data Analysis is quantitative evaluation of **Numeric Data** and multiple data points with the same unit can be combined using basic arithmetic operations to form a new data point. Height (in mm), weight (in kg), temperature (degrees F), proportions (percent), and monetary values are examples numeric data points. House numbers, credit scores, and jersey numbers are examples of numbers that are not numeric data points, as none have units nor can these numbers be combined arithmetically to form another numeric data point.

Numeric Data points are numbers that represents value. Generally, each numeric data point has a unit of measure

Height in Whole Inches

Consider the numeric **Data Set** of **Height in Whole Inches** of students in MA3200 Section 2, in the original order presented:

A **Data Set** is a collection of numeric data points

```
## 64 70 72 73 69 67 68 66 62 71 66 72 67 74 71 72 67 71 65 65 69 71 69 72 71 68 63 54
```

This set of data has 28 data points. To better evaluate this data, let's sort it.

```
## 54 62 63 64 65 65 66 66 67 67 67 68 68 69 69 69 70 71 71 71 71 71 72 72 72 72 73 74
```

We can begin to see patterns of multiple values, and can quickly see that the lowest or minimum value is 54 and the highest or maximum value is 74. The **Range** is 20

The **Range** is difference between the maximum and minimum values of a data set