

# MATH 1342

Section 1.2

One question we want to answer about data is about its location, particularly the location of its center.

- Mean –

Symbols for mean:  $\bar{x}$  vs.  $\mu$

- Median –

- Mode –

# Examples:

1. Twelve babies spoke for the first time at the following ages (in months):

8 9 10 11 12 13 15 15 18 20 20 26

a. What is the mean of the data?

b. What is the median of the data?

To Copy: 8,9,10,11,12,13,15,15,18,20,20,26

R Studio Commands:

To assign to a list: `assign("name",c(1,2,3,4,5))`

`mean(name)`

`median(name)`

`min(name)`

`max(name)`

`sort(name)`

`length(name)`

# TI-83/84 Calculator Commands

To assign values to a list:      STAT → (option 1): Edit

Fill in the values to the L1

(to clear a list, scroll up to highlight list name, press CLEAR, scroll down)

To find measures:

STAT → (right arrow) Calc →

(option 1): 1-Var Stats

List: list name (usually L1)

FreqList: >>Blank<<

$\bar{x}$  : Mean  
Sx: Standard Deviation  
n: size of list  
minX: Minimum Value  
Q1: First Quartile  
Med: Median Value  
Q3: Third Quartile  
maxX: Maximum Value

2. Here are the weights (in pounds) of 20 steers on an experimental feed diet:

174 142 131 145 175 150 176 151 110 162

133 163 135 178 178 154 166 146 156 167

- a. What is the mean of the data?
  
  
  
  
  
  
  
  
  
  
- b. What is the median of the data?
  
  
  
  
  
  
  
  
  
  
- c. What is the mode of the data?

To copy:

174,142,131,145,175,150,176,151,110,162,133,1  
63,135,178,178,154,166,146,156,167

3. The test scores of a class of 20 students have a mean of 71.6 and the test scores of another class of 14 students have a mean of 78.4. Find the mean of the combined group.



4. Explain why the conclusion drawn is not valid:

A businesswoman calculates that the median cost of the five business trips that she took in a month is \$600 and concludes that the total cost must have been \$3000.