MTH 243

## Week 6 Project Update

For my project I decided to estimate my mean heart rate by collecting data. Each day since the beginning of the course, I have been measuring my heart rate three times in the evening using an electronic heart rate monitor.

The six weeks of data I have so far are:

| $1{ }^{\text {st }}$ Measurement | $2^{\text {nd }}$ Measurement | $3^{\text {rd }}$ Measurement |
| :---: | :---: | :---: |
| 73 | 70 | 69 |
| 61 | 62 | -60 |
| 65 | 63 | 61 |
| 66 | 64 | 68 |
| 65 | 66 | 66 |
| 70 | 72 | 71 |
| 63 | 60 | 60 |
| 60 | 62 | 63 |
| 61 | 60 | 58 |
| 69 | 67 | 66 |
| 74 | 68 | 73 |
| 68 | 71 | 67 |
| 72 | 75 | 77 |
| 67 | 66 | 66 |
| 70 | 67 | 64 |
| 59 | 62 | 62 |
| 71 | 70 | 70 |
| 69 | 68 | 70 |
| 64 | 65 | 66 |
| 66 | 68 | 64 |
| 65 | 63 | 63 |
| 72 | 71 | 68 |
| 66 | 66 | 64 |
| 70 | 72 | 68 |
| 70 | 71 | 74 |
| 63 | 63 | 62 |
| 60 | 61 | 61 |
| 70 | 64 | 68 |
| 71 | 68 | 76 |
| 74 | 72 | 69 |
| 72 | 73 | 71 |
| 61 | 62 | 63 |
| 68 | 66 | 66 |
| 69 | 69 | 66 |
| 70 | 66 | 66 |
| 65 | 65 | 67 |
| 72 | 70 | 72 |
| 63 | 64 | 71 |
| 63 | 61 | 62 |
| 65 | 65 | 65 |
| 66 | 66 | 66 |
| 73 | 72 | 73 |

The following is a histogram of these data.


Below is a box plot of these data.


The following are the the summary statistics for these data.

| Number of Data Points: $n=126$ |  |
| :--- | :--- |
| Mean: | $\bar{x}=66.8175$ |
| Standard Deviation: | $s=4.1922$ |
| Minimum: | Min $=58$ |
| 1st Quartile: | $Q_{1}=63$ |
| Median: | $M=66$ |
| 3rd Quartile: | $Q_{3}=70$ |
| Maximum: | Max $=77$ |

As seen from the above from our histogram, the distribution of the data continues to follow a roughly symmetric with no outliers. This statement is further substantiated by the fact that the mean and median and median are approximately equal.

I will continue to gather data as the term progresses with the aim of getting the best possible estimate of my true mean heart rate by the end of the term.

