

Math 110  
Spring, 2009

Name \_\_\_\_\_  
Calculator \_\_\_\_\_

Homework #6  
Due Monday, March 23  
No late papers accepted! No excuses!

1. The given values are weights (ounces) of a sample of steaks listed on the menu as “20-ounce Porterhouse” steaks.

17	20	21	18	20	20	20	18	19	19
20	19	21	20	18	20	20	19	18	19

Find each of the following:

a) mean \_\_\_\_\_ b) median \_\_\_\_\_ c) mode \_\_\_\_\_

d) midrange \_\_\_\_\_ e) range \_\_\_\_\_ f) st dev \_\_\_\_\_

g) Variance \_\_\_\_\_ h) Q1 \_\_\_\_\_ i) Q3 \_\_\_\_\_

j) IQR \_\_\_\_\_

k) Are there any unusual scores? Why or why not?

l) Is the data collected discrete or continuous?

2. Samples of students cars were obtained at the author's college, and their ages (in years) are summarized in the accompanying table.

<u>Age</u>	<u>Frequency</u>
<u>0 -- 2</u>	<u>23</u>
<u>3 -- 5</u>	<u>33</u>
<u>6 -- 8</u>	<u>63</u>
<u>9 -- 11</u>	<u>68</u>
<u>12 -- 14</u>	<u>19</u>
<u>15 -- 17</u>	<u>10</u>
<u>18 - 20</u>	<u>1</u>

Find the mean and the standard deviation.

What is the class width?

Construct a relative frequency table.

Construct a cumulative frequency table.

3. Bao Xishun is the world's tallest man with a height of 92.95 inches. Men have heights with a mean of 69.6 inches and a standard deviation of 2.8 inches. Convert Bao's height to a z-score. Does Bao's height meet the criterion of being unusual?

4. Score on the SAT test have a mean of 1518 and a standard deviation of 325. Scores on the ACT test have a mean of 21.1 and a standard deviation of 4.8. Which is relatively better: a score of 1190 on the SAT or a score of 16.0 on the ACT? Why?

5. A simple random sample of FICO credit rating scores was obtained, and the sorted scores are below. Construct a boxplot and include the values of the 5-number summary.

664	693	698	714	751	753
779	789	802	818	834	836