Math 160 — Quiz 2
Professor Busken
Due Thursday, Feb. 14^{th} **Name:** _____

For questions 1—16, use the data set listed below.

155 142 149 130 151 163 151 142 156 133 138 161 128 144 172 137 151 166 147 163

145 116 136 158 114 165 169 145 150 150 150 158 151 145 152 140 170 129 188 156

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1. Construct a frequency distribution table. Use 8 classes.
2. Construct a relative frequency distribution table.
3. Construct a cumulative frequency distribution table.
4. Construct a histogram.
5. Construct a relative frequency histogram.
6. Construct an ogive.
7. Construct a stem and leaf plot by using the first two leading digits as the stem.
8. Expand the stemplot by subdividing rows into those with leaves having digits of 0 through 4 and those with digits 5 through 9.
9. Determine the value of $\bar{x}$. 9. _____
10. What is the median value of data set? 10. _____
11. Is there a mode? If so what is its value? 11. _____
12. What is the midrange value of data set? 12. _____
13. Determine the range of the data. 13. _____
14. What is the correct formula for standard deviation? 14. _____
15. Determine the standard deviation of the data set. 15. _____
16. Determine the variance of the data set. 16. _____

The expenses of Judy's company for last year are summarized in the following table.

Category	**Amount (in millions)**
Research & Development	\$15
Information Technology	11
Accounting	4
Employee Payroll	36
Total	\$66

17. Construct a pie chart and bar chart to describe the data.

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18. Suppose Jenny earned an 88% for participation, a 92% for homework assignments, and a 88% for her quiz average (after dropping the lowest three). Also suppose Jamie had a 83% exam average. If Jamie wants an overall grade in the class of B (82.5%), what percentage score does she need to get on the final exam?

18. _____

19. A simple random sample of FICO credit rating scores is listed below. As of this writing, the mean FICO score was reported to be 678. Based on these results, is a FICO score of 500 unusual? Why or why not? (Hint: p104)

19. _____

20. Suppose the ages of the people in a math class are between 18 and 47. What is a reasonable estimate for the standard deviation of those ages?

20. _____

21. A generator produces voltage amounts with a mean of 125.0 volts and a standard deviation of 0.3 volt, and the voltages have a normal distribution. Using the Empirical Rule, what is the approximate percentage of voltage amounts between

    a.) 124.4 volts and 125.6 volts

    b.) 124.1 volts and 125.9