Practice Chapter 1 Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

MAT141 Schaben

Show all work for the following problems.

Using the data provided for average home price (in thousands) for 14 different states, complete problems #1 to #4. Show all work for problems by hand – you can use the calculator to check.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 300,000 | 227,000 | 225,000 | 225,000 | 222,500 | 275,000 | 325,000 |
| 215,000 | 200,000 | 199,000 | 195,000 | 425,000 | 480,000 | 490,000 |

1. Find the mean, median, mode by hand. Round to hundredths. (3 pts)

Mean:

Median:

Mode:

1. Find the range and the standard deviation (use calculator) (2 pts)

Range:

 Standard Deviation (round to hundredths):

1. Find the 5 number summary by hand. (2 pts)

Min: Q1: Med:

 Q3: Max:

1. Using a class width of $75,000 starting at $175,000, create a frequency table and a histogram of the data. If the number is on the class boundary, count it in the higher class. (5 pts)

Use this information for problems #5-8

Suppose the mean score on the project is 85 with a standard deviation of 4.

1. What is the z score for a student who scored a 79 on the project? (2 pts)
2. What test score corresponds to a z score of 1.5? (2pts)
3. Using the 68-95-99.7 rule, if the test scores are normally distributed, then what percentage of students would score between 77 and 89? Round percentage to the nearest tenth if needed. (2 pts)
4. If the test scores are normally distributed, then what percentage of students would score below a 77? Round percentage to the nearest tenth if needed. (2 pts)