**Lab for Section 13.4** Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*Use good notation and show appropriate work. State your solutions to problems in complete sentences.*

1. Which “average”, measure of central tendency, would you use for the situation described
(mean, median, mode or midrange)?

 (a) The average income in Minnesota is $43,000.

 (b) The average score on the exam was 78%.

 (c) The average temperature on Sunday was 8° C.

 (d) The average person is a fair driver.

 (e) The average monthly temperature in January is –12° C.

 (f) The average height of the people in Minnesota.

2. Find each measure of central tendency for homework/labs, which had the following scores:

8, 7, 10, 7, 7, 10, 3, 9, 10, 9.

 (a) mean (b) median

 (c) mode (d) midrange

3. Consider the scenario: You have five bags of different kinds of potato chips and you know the “average” cost for a bag of chips is $2.46. What might be the actual prices for each of the five bags of chips, if they are not all priced the same?

(a) Average is the mean. (b) Average is median.

(c) Average is the mode. (d) Average is the midrange.

4. A small business with 12 employees reports an “average” salary of $35,000. Some additional employees will be hired. In each of the following cases determine the new “average” salary if average refers to

 (i) mean, (ii) median, (iii) mode, or (iv) midrange.

 (a) Suppose three new employees are hired at salaries of $30,000, $30,000, and $35,000.

 (i) Find the new mean. (ii) Find the new median.

 (iii) Find the new mode. (iv) Find the new midrange.

 (b) Suppose two new employees are hired at salaries of $30,000 and $35,000.

 (i) Find the new mean. (ii) Find the new median.

 (iii) Find the new mode. (iv) Find the new midrange.