

Graded Homework Set 3 – Statistics Math 135 (Reference pages in red)
(8 problems)

The number of miles per gallon that 30 selected 4-wheel drive sports utility vehicles obtained in city driving is show below:

12	17	12	14	16	18
16	18	12	16	17	15
15	16	12	15	16	16
12	14	15	12	15	15
19	13	16	18	16	14

Use this data for all problems given below for problems 1 through 6.

1. Construct a histogram using a class width of two. (i.e. 12 and 13, 14 and 15 etc.)

(See page 79)

2. Find the:

- mean
- mode
- median.

(See page 121 to 127)

3. Find the:

- sample standard deviation, s (see page 141)
- range (see page 138)
- midrange (See top of page 52 for midrange)
- standard deviation approximation by the range rule of thumb
(See page 412, bottom of page)

4. Find the:

- 80 percentile cutoff data point (See page 167)
- Q_1 (See page 170)
- Q_3 (See page 170)

5. Construct a stem and leaf plot for this data.

(See page 82)

6. Construct a box plot for this data(ensure that on your plot you identify the minimum value, the maximum value, the median, Q_1 and Q_3 . Also ensure that your plot contains a number scale. Do not calculate fences.) (See page 177)

The following data represent the percentage change in population of states in the South and West and the states in the Northeast and Midwest from the years 1990 to 2000:

Percentage change for South and West States:

1,10,10,11,11,13,14,14,14,14,16,19,19,19,20,20,21,21,23,24,25,27,28,30,30,31,
36,40,66

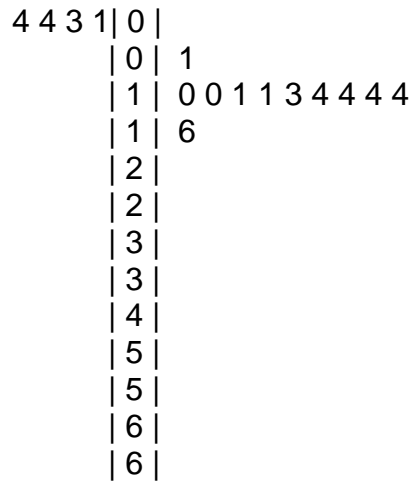
Percentage change for Northeast and Midwest States:

1,3,4,4,5,5,6,6,7,8,8,9,9,9,9,10,10,11,12

7. Complete the double stem and leaf plot whose beginnings are shown below:
(See page 95)

NE/MW States

S/W States



8. Write a few sentences describing the difference in growth rates for the two regions of the United States.