Tutorial 1

Week of January 14, 2019

Question 1.10, Page 24

Consider the following data set for beam strength:

5.9	7.2	7.3	6.3	8.1	6.8	7.0	7.6	6.8	6.5
7.0	6.3	7.9	9.0	8.2	8.7	7.8	9.7	7.4	7.7
9.7	7.8	7.7	11.6	11.3	11.8	10.7			

(a) Construct a stem-and-leaf display of the data. What appears to be a representative strength value? Do the observations appear to be highly concentrated about the representative value or rather spread out?

(b) Does the display appear to be reasonably symmetric about a representative value, or would you describe its shape in some other way?

(c) Do there appear to be any outlying strength values?

(d) What proportion of strength observations in this sample exceed 10 MPa?

Question 1.15, Page 25

Do running times of American movies differ somehow from running times of French movies? The author investigated this question by randomly selecting 25 recent movies of each type, resulting in the following running times:

Am: 94 90 95 93 128 95 125 91 104 116 162 102 90 110 92 113 116 90 97 103 95 120 109 91 138
Fr: 123 116 90 158 122 119 125 90 96 94 137 102 105 106 95 125 122 103 96 111 81 113 128 93 92

Construct a comparative stem-and-leaf display by listing stems in the middle of your paper and then placing the Am leaves out to the left and the Fr leaves out to the right. Then comment on interesting features of the display.