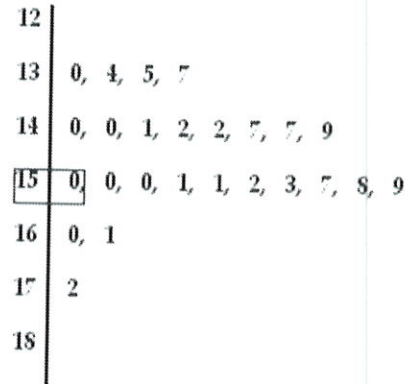


Instructions: Show all work to receive full credit. You should note any formulas used or calculator functions used, their inputs and outputs. I cannot grade work if I don't know where an answer came from. Be sure complete all parts of each questions, including requests for interpretation and explanations. Be as thorough as possible.

1. Below is a stem-and-leaf plot of measurements of arm span lengths.

Stem-and-leaf plot for arm span



The 'stem' numbers represent the tens, and the 'leaves', arranged in numerical order, represent the units of each data item - the boxed item represents 150 cm

Find the following statistics based on this data:

- a. The mean

$$\bar{x} = 148.3$$

- b. The median

$$150$$

- c. The mode (if it exists)

$$150 \text{ (repeated 3 times)}$$

- d. The range

$$172 - 130 = 42$$

- e. The standard deviation

$$s_x = 9.83$$