Box and Whiskers Plot

PART I

Instructions:

1. Using the following set of data put the numbers in order from least to greatest. Write each number in one square of the graph paper strip that is provided. Tear off the empty squares from the strip.

   15, 18, 21, 7, 29, 20, 9, 23, 25, 25, 29, 14, 8, 18, 26, 28, 27, 19, 7, 26

2. Find the median of the data by folding the paper strip in the middle. Fold the ends of the paper strip to the center. These folds mark the median (middle) of the lower half of the data and the median (middle) of the upper half of the data. By folding the paper strip in this way you have divided the data into four equal parts.

3. You are now ready construct the box and whiskers plot which will be drawn above the number line below.

   A. Draw a vertical bar above the number line to mark the median of the data set.

   B. Draw two more vertical bars above the number line to show where the lower median (1st quartile) and upper median (3rd quartile) are on the number line.

   C. Connect the tops of these bars with a horizontal line. Connect the bottom of the bars with a horizontal line. This should form a "box"

   D. Place dots above the number line to show where the smallest (minimum) and the largest (maximum) numbers are on the number line. Connect these dots to the "box" on each side with horizontal lines. These are the "whiskers".

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30