

Activity 3.5 Applied Statistics

Name: _____

1. Part of the manufacturing quality control testing for a toy is to measure the depth of a connector piece that must fit into another part. The designed depth is 4.1 cm. Every tenth part produced on the production line is measured. The following data was collected during a two-minute production period:

4.1, 4.1, 4.0, 4.1, 3.9, 4.4, 3.9, 4.3, 4.0, 4.2, 4.0, 3.8

- a. Place the values in order from least to greatest

- b. Find the following.

i. Sum of the data collected: $\Sigma =$ _____

ii. Number of terms: $n =$ _____

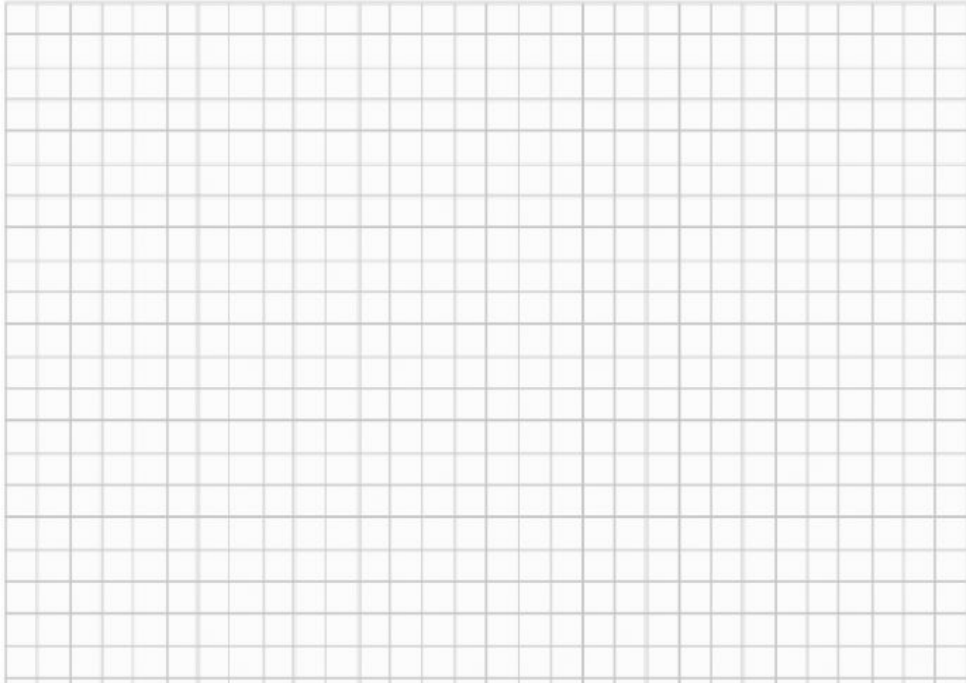
- c. Calculate each of the following measures of central tendency. Show your work.

i. Mean: _____

ii. Median: _____

iii. Mode: _____

- b. Create a histogram for the data. The horizontal axis should display each length measurement from the minimum to maximum recorded lengths. You may choose to begin with a dot plot and then fill in the bars. Be sure to label your axes.



- c. What class interval is appropriate for the measurement values reported as 4.1 cm?

_____ < x ≤ _____

