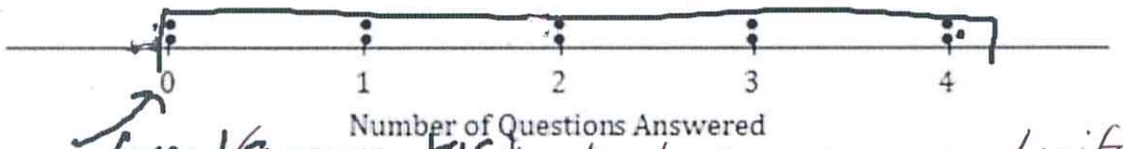
3. Suppose the dot plot looked like this:



also called rectangular

also called uniform / symmetric (is ok, but rectangular / uniform is better)

a. Use your calculator to find the mean and the standard deviation of this distribution.

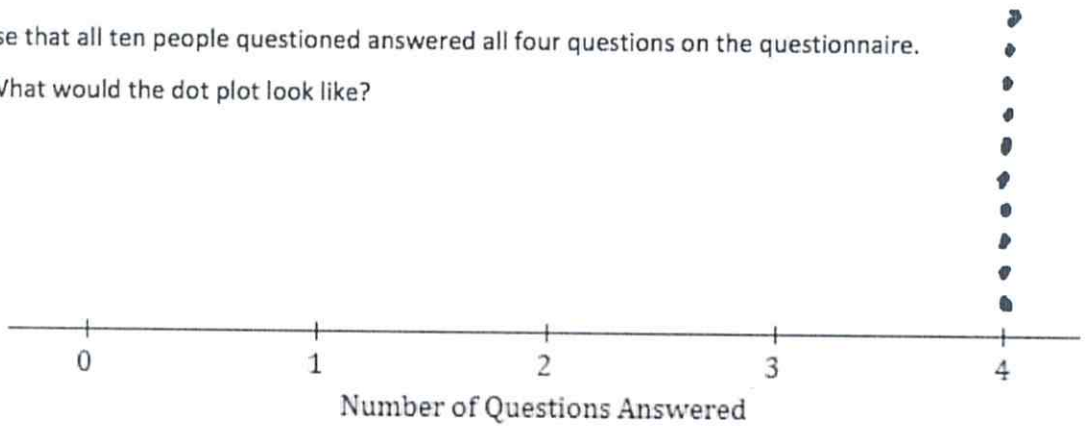
$\bar{x} = \frac{20}{10} = 2$ questions $S_x = 1.49$ questions

b. Remember that the size of the standard deviation is related to the size of the deviations from the mean. Explain why the standard deviation of this distribution is greater than the standard deviation in Exercise 2.

Moving 2 pts from center (#2 plot) to ends (#3 plot) increases std. deviation because data is spread out more

4. Suppose that all ten people questioned answered all four questions on the questionnaire.

a. What would the dot plot look like?



b. What is the mean number of questions answered? (You should be able to answer without doing any calculations!)

$\bar{x} = 4$

c. What is the standard deviation? (Again, don't do any calculations!)

$S_x = 0$