

**SHOW ALL WORK. Answer the following questions and put your answers in the answer blank.**

**Use the following set of data to find the answers to problems 1-11:**

**8, 8, 10, 11, 15, 12, 13, 13, 11, 9, 4, 3, 11, 14, 16, 11, 4, 21**

1. Mean 1. \_\_\_\_\_

2. Median 2. \_\_\_\_\_

3. Mode 3. \_\_\_\_\_

4.  $S_x$  4. \_\_\_\_\_

5.  $\sigma_x$  5. \_\_\_\_\_

6. CV (Coefficient of Variation) 6. \_\_\_\_\_

7. Sample Variance 7. \_\_\_\_\_

8. A 10% trimmed mean 8. \_\_\_\_\_

9. Give the 5 number summary

9. Min= \_\_\_\_\_

Q1= \_\_\_\_\_

Med= \_\_\_\_\_

Q3= \_\_\_\_\_

Max= \_\_\_\_\_

10. Make a Box-and-Whisker plot

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11. Using Chebbychev's theorem (and assuming the data is a sample) find an interval for which you are assured that at least 75% of data. 11. \_\_\_\_\_

12. The data below represents the number of pumpkins produced in a sample from local pumpkin patches. Using this data, find the sample mean and the sample standard deviation.

$\bar{x}$  = \_\_\_\_\_

Sx= \_\_\_\_\_

Weight in lbs	Number (f)
1-4	5
5-8	7
9-12	11
13-16	15
17-20	6

13. A college class gives 4 scores (each worth 100 points). Homework is worth 15% of the grade, the midterm is worth 30% of the grade, the final is worth 45% of the grade and 10% of the grade is based on the reading summary. If Sharon got a 86 on Homework, 79 on the midterm, 91 on the final and only a 57 on the reading summary, calculate Sharon's final grade.