ST-210 Exam 1 (Chapters 1-5) **Section:_____**
Name_____ **Date:_____**

1. (5 pts) A population in statistics means

Differentiate a sample from a population.

2. (5 pts) True or False: _ is an example of a parameter _____
s is an example of a parameter _____
s^2 represents population variance_____

3. (5 pts) You take a national exam and score in the 75th percentile. What does this mean? What quartile does this percentile correspond to?

4. (5 pts) True or False: The variance of a data set cannot be zero.

5. (20 pts) For the following sample data: 16, 12, 15, 20, 19
Compute and denote with an appropriate symbol where possible:

a.) mean c.) variance

b.) median d.) standard deviation

6. (20 pts) A height distribution has a mean of 73 inches and a standard deviation of 3 inches.

a.) Assuming no distributional form, what percent of heights are
i. between 67 and 79
ii. outside of the above interval

b.) Assuming normality, what percent of heights are
i. greater than 76 inches
ii between 64 and 73 inches
iii. less than 70 inches

7. (15 pts) For the following numerical distribution, provide a **frequency polygon**. What is the length of each class?

Class	Frequency
10-14	10
15-19	15
20-24	8
25-29	2

9. (25 pts) Thirty percent of all U.S. households own a computer. You randomly sample ten of these households and ask each if they own a computer.

a.) What is the random variable?

b.) What is the probability distribution?

c.) What is the probability function?

d.) What is the probability 4 of the10 will own a computer?

e.) What is the probability that at least 2 of the 10 will own a computer?