Statistics Chapter 11 Part 2 Review Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Given the statistical distribution of the table.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **x-value** | **61** | **64** | **67** | **70** | **73** |
| **frequency** | **5** | **8** | **18** | **15** | **3** |

Calculate:

**a.** [mode](http://www.vitutor.com/statistics/descriptive/mode.html):\_\_\_\_\_\_\_\_\_ [median](http://www.vitutor.com/statistics/descriptive/median.html):\_\_\_\_\_\_\_\_\_ [mean](http://www.vitutor.com/statistics/descriptive/arithmetic_mean.html):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b. Range: \_\_\_\_\_\_\_\_\_\_\_ Standard deviation:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2.Giventhe following set of numbers

5, 3, 6, 5, 4, 5, 2, 8, 6, 5, 4, 8, 3, 4, 5, 4, 8, 2, 5, 4.

Calculate: mean;\_\_\_\_\_\_\_\_ median:\_\_\_\_\_\_\_\_\_ and mode:\_\_\_\_\_\_\_\_\_\_

1. Find the [**variance**](http://www.vitutor.com/statistics/descriptive/variance.html) and [**standard deviation**](http://www.vitutor.com/statistics/descriptive/standard_deviation.html) for the following data series:

12, 6, 7, 3, 15, 10, 18, 5.

1. Find the mean, median and mode for the following set of numbers:

3, 5, 2, 6, 5, 9, 5, 2, 8, 6.

1. Find the Standard Deviation and Mean for the following series of numbers:

2, 3, 6, 8, 11.

12, 6, 7, 3, 15, 10, 18, 5.

Use the above information to draw and

label a normal curve showing the cutoff

points for ± 3standard deviations

1. Given the series: 3, 5, 2, 7, 6, 4, 9.3, 5, 2, 7, 6, 4, 9, 1.

Calculate mode:\_\_\_\_\_\_\_\_\_\_\_, median:\_\_\_\_\_\_\_ mean:\_\_\_\_\_\_\_\_\_\_\_\_\_

Standard deviation:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ & quartiles 1 and 3.\_\_\_\_\_\_\_

7. Several intelligence tests follow a normal distribution with a mean of 100 and a standard deviation of 15. Draw a normal curve to illustrate the answer.

a. Determine the percentage of the population that would obtain a score between 95 and 110.

b. What interval centered at a score of 100 contains 50% of the population?

c. For a population of 2,500, how many are expected to have a score above 125?

8. In a city, it is estimated that the maximum temperature in June is normally distributed with a mean of 23º and a standard deviation of 5°. Calculate the number of days in this month in which it is expected to reach a maximum of between 18° and 28°. Draw a normal curve to illustrate the answer.