**10-4 Practice Due date: 5/8/2020**

***Distributions of Data***

 **Construct a histogram for the data, and use it to describe the shape of the distribution.**

 **1.** 52, 42, 46, 53, 22, 36, **2.** 51, 44, 54, 48, 63, 57, **3.** 42, 19, 24, 14, 55, 21,

 49, 23, 50, 44, 25, 28, 58, 46, 55, 51, 63, 52, 51, 36, 22, 16, 32, 18,
48, 45, 54, 50, 18, 38 46, 56, 57, 48, 52, 49 46, 49, 64, 12, 19, 39

 40, 34, 53, 42, 16, 44, 50, 56, 61, 51, 45, 52, 17, 20, 35, 52, 23, 17,

 50, 42, 45, 50, 25, 47, 53, 55, 62, 55, 50, 53, 25, 33, 18, 26, 17, 24,

 33, 48, 49, 36, 49, 39 60, 56, 57, 59, 54, 45 13, 27, 37, 29, 30, 19

**Describe the maximum and minimum values of data, the mean and standard deviation . Then construct a box-and-whisker plot for the data.**

 **4.** 78, 82, 76, 48, 71, 78, 65, 78, 81, 76, 53, 63, 79, 60, 78, 59, 78, 61

 70, 68, 70, 58, 45, 72, 78, 86, 73, 77, 80, 60, 75, 84, 67, 79, 70, 75

 **5.** 63, 46, 48, 41, 72, 54, 48, 57, 53, 80, 52, 64, 55, 44, 67, 45, 71, 48

61, 45, 74, 49, 69, 54, 50, 72, 66, 50, 44, 58, 60, 54, 48, 59, 43, 70

 **6.** 33, 25, 18, 46, 35, 25, 18, 39, 33, 44, 20, 31, 39, 24, 24, 26, 15, 28

23, 29, 40, 19, 20, 31, 45, 37, 30, 17, 38, 21, 43, 14, 30, 47, 42, 34

 **7. GASOLINE** The average prices per gallon of gasoline during the first week of August on the east coast for the 18 year period from 1993 to 2010 are shown. Describe the center and spread of the data using either the mean and standard deviation or the five-number summary. Justify your choice by creating a box-and-whisker plot for the data.

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| **Price per Gallon (dollars)** |
| 1.05, 1.09, 1.13, 1.17, 1.15, 0.99, 1.12, 1.44, 1.28, 1.34, |
| 1.49, 1.85, 2.26, 3.00, 2.81, 3.87, 2.51, 2.66 |