**NC Math 1B Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Unit 7 Lesson 3 Homework: Outliers and Modified Box Plots**

1. The heights of 14 adult males are listed below.

70 65 75 69 68 64 69 69 66 71 68 67 73 68

**Find the following:**

Mean = \_\_\_\_\_ Minimum = \_\_\_\_\_ Q1 = \_\_\_\_\_ Median = \_\_\_\_\_ Q3 = \_\_\_\_\_ Maximum = \_\_\_\_\_

Using the (1**.**5)\*(IQR) rule, determine whether or not there were any outliers.

(1**.**5) (IQR) = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Are there any outliers? Explain?

\_\_\_\_\_\_\_\_\_\_\_\_\_ **+** \_\_\_\_\_\_\_\_\_\_\_\_\_ = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 (Q3) (1.5) (IQR)

\_\_\_\_\_\_\_\_\_\_\_\_\_ **–** \_\_\_\_\_\_\_\_\_\_\_\_\_ = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 (Q1) (1.5) (IQR)

On a separate sheet of paper construct a box plot or modified box plot of the data.

Describe the shape of the data (symmetric, skewed left, skewed right, uniform).

Which measure of center (mean or median) would be best to report here and **why**?

3. The Cary Police, using radar, checked the speed (in mph) of 30 passing motorists at a checkpoint. The results are listed below. Construct a boxplot of this data and describe it.

 31 36 36 37 39 40 40 41 41 41

 42 42 42 43 43 43 44 45 45 45

 47 48 48 48 48 49 49 50 50 50

**Find the following:**

Mean = \_\_\_\_\_ Minimum = \_\_\_\_\_ Q1 = \_\_\_\_\_ Median = \_\_\_\_\_ Q3 = \_\_\_\_\_ Maximum = \_\_\_\_\_

Are there any outliers? Show work to justify your response.

On a separate sheet of paper construct a box plot or modified box plot of the data.

Describe the shape of the data (symmetric, skewed left, skewed right, uniform).

Which measure of center (mean or median) would be best to report here and **why**?