

Math 153 - Quiz 4

February 19, 2015

Name key

Score _____

Show all work to receive full credit. Supply explanations when necessary.

1. (6 points) The numbers below show the points scored by the Chicago Bulls in their 2012-2013 season playoff games (in the order in which they occurred).

~~89~~ ~~90~~ ~~79~~ ~~142~~ ~~91~~ ~~92~~
~~90~~ ~~98~~ ~~78~~ ~~94~~ ~~65~~ ~~91~~

Compute the five-number summary, the interquartile range (IQR), and the cutoff values for outliers.

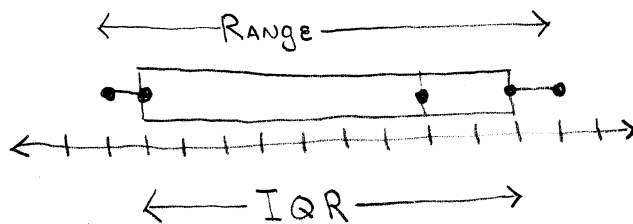
65, 78, 79, 89, 90, 91, 91, 92, 93, 94, 99, 142

$$Q_1 = \frac{79+89}{2} = 84 \quad \text{MEDIAN} = 91 \quad Q_3 = \frac{93+94}{2} = 93.5$$

$MIN = 65$ $Q_3 = 93.5$
 $Q_1 = 84$ $MAX = 142$
 $MED = 91$ $IQR = 93.5 - 84 = 9.5$

CUTOFFS:
 $84 - 1.5(9.5) = 69.75$
 $93.5 + 1.5(9.5) = 107.75$

2. (2 points) Sketch a boxplot corresponding to a data set whose IQR is only a bit smaller than its range.



3. (2 points) Sketch a boxplot corresponding to a data set whose 1st quartile is only a bit smaller than its median, but a lot smaller than its 3rd quartile.

