Monday, December 10, 2018

Q1 − 1.5 IQR

- Warm-up
  - Answer the following MC Questions (on each possible answer, show why it is FALSE)

Here are the IQ scores of 10 randomly chosen fifth-grade students:

$$96 \quad 110 \quad 118 \quad 118 \quad 122 \quad | \quad 125 \quad 126 \quad 130 \quad 139 \quad 145$$

Q1   *123.5*   *Q3*

Which of the following statements about this data set is ***False***?

(A) If the value 96 was removed from the data set, the median of the   *True* remaining 9 IQ scores would be higher than the median of all 10 IQ scores.

(B) If the value 96 was removed from the data set, the *IQR* of the remaining 9 IQ scores would be lower than the *IQR* of all 10 IQ scores.   *higher*   *False*

(C) If the value 96 was removed from the data set, the standard deviation of the remaining 9 IQ scores would be higher than the standard deviation of all 10 IQ scores.   *False*

(D) If the value 96 was removed from the data set, the standard deviation of the remaining 9 IQ scores would be lower than the standard deviation of all 10 IQ scores.   *True*

- Ogive Curves

- Matching Distributions

Ogive Curves – Intro & Practice

The following cumulative relative frequency graph (ogive) displays the distribution of the lifetime (in hours) of a AA battery.

1. Approximately what percent of the batteries will last fewer than 250 hours? ≈ 30%

2. Approximately what proportion of batteries will last 325 hours or more? 15%

3. What battery life would be needed so that the battery was at the 60th percentile? ≈ 285 – 288

4. What is the median battery life? 275

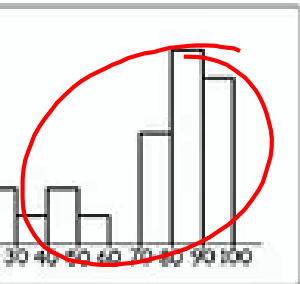5. Determine the IQR of the distribution of battery lifetimes. ≈ 75

Lifetimes of AA Batteries (hrs)

cumulative relative freq

Battery Life (in hours)

310
− 235
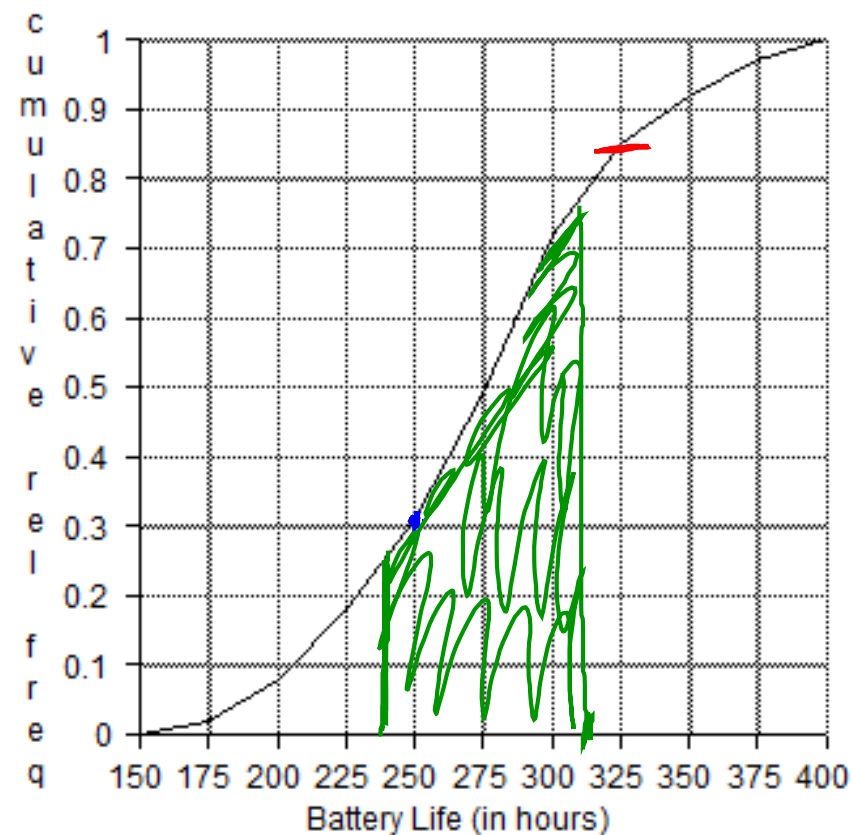
Matching Boxplots, Histograms, and Summary Statistics.

I A 5

II C 1

III D 8

IV G 3

V E 2

VI F G

VII B 4

VIII H 7
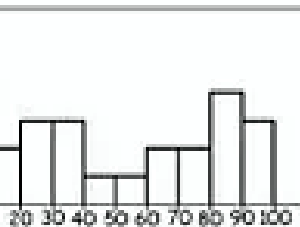
mean = skew

Mean
40.76
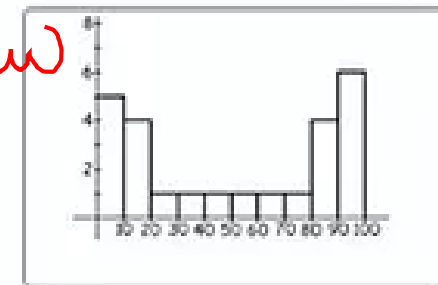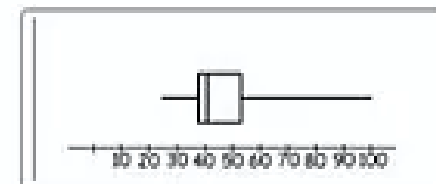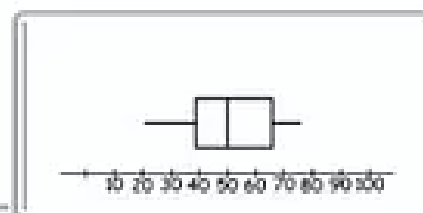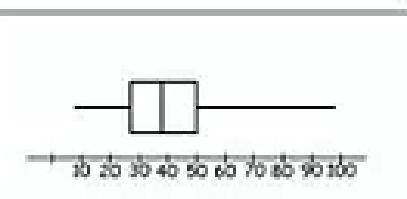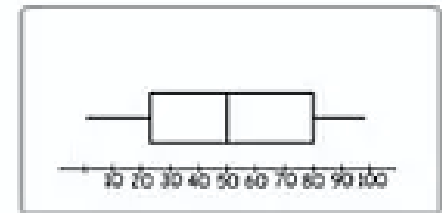Median
38
Standard Deviation
21.171

Mean
68.72
Median
71
Standard Deviation
30.019

Mean
52.32
Median
53
Standard Deviation
38.297

.32
dian
0
Deviation
163

Mean

MC Flash Cards