

Answers Rev Ch 1 & 2

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60) The distribution is roughly symmetric with the exception of one possible outlier at 4.88. The median is located at 5.46. The spread of the distribution is from 4.88 to 5.85.

N = 29    Leaf = .01

48	8				
49					
50	7				
51	0				
52	6	7	9	9	
53	0	4	4	6	9
54	2	4	6	7	
55	0	3	5	7	8
56	1	2	3	5	8
57	5	9			
58	5				

66) a) OMIT                      b) The median is located at approximately 5. The lower quartile is located at approximately 2.5. The upper quartile is located at approximately 11.

According to the 1.5(IQR) Rule outliers exist:

$$1.5(11 - 2.5) = 12.75 \quad 2.5 - 12.75 = -10.25 \quad \text{no values below this cutoff}$$

$$11 + 12.75 = 23.75 \quad \text{there are values above this cutoff}$$

c) A student who used his computer 10 hours would fall in the 70<sup>th</sup> percentile.

68) A difference this large between the two measures of center can occur when the distribution is skewed right. In other words, there were only a few very large monetary amounts awarded by the juries.

p. 162

54) a) Joey scored as well or better than 97% of all students who took the reading test and as well or better than 72% of all students who took the math test.

b) No we must know that the distribution of scores is Normal and we don't know that.

58) a) About 0.6% of healthy young adults have osteoporosis by the WHO criterion.

b) About 31% of women aged 70 to 79 has osteoporosis by the WHO criterion.

60) The mean is 250 and the standard deviation is 175.8.