

AP Statistics

2019-01-16 1.3 Assignment

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Pg. 70-74 79,81,87,89,91,95,97,107-110

Question 79

$$\text{mean} = (86+84+91+75+78+80+74+87+76+96+82+90+98+93)/14 = \mathbf{85}$$

The mean shows the even distribution of the sum of all scores across each student.

Question 81

Part A

$$\text{Median} = \mathbf{85}$$

Part B

$$\text{Mean} = \mathbf{79.3}$$

$$\text{Median} = \mathbf{84}$$

Resistance

Question 87

Part A

Median = 7 from approximating the height of each bar

Mean = 9 - the distribution is significantly skewed right

Part B

Median as it is less resistant to outliers and the right skew

Question 89

Part A

$$\text{IQR} = Q[3] - Q[1] = 91 - 78 = 13$$

Part B

Outlier bounds:

$$\text{Min: } 78 - 13 * 1.5 = 58.5$$

$$\text{Max: } 91 + 13 * 1.5 = 110.5$$

No outliers

Question 91

Part A

See "2019-01-16 1.3 Assignment - Image 1.png"

Part B

No. There are approximately 30 days in a month. The median number of messages sent/received from the class was 9, which results in 270/month, much less than the 1742 messages stated in the article.

Question 95

Part A

3.0, -3.5

Part B

0.0

Part C

The stocks have a much larger distribution.

Question 97

Part A

stddev = 0.6419

Part B

The levels of mg of phosphate vary 0.6419 about the mean of the sample.

Question 107: **D**

Question 108: **B**

Question 109: **A**

Question 110: **E**