

AP Statistics

2019-02-06 2.1 Assignment

By: Noah Overcash

Pg. 105-109 5,7,9,11,15,19,21,31,33-38

Question 5

The girl is heavier than 48% of other girls her age and taller than 78%.

Question 7

Part A

This student sent approximately 200 texts and is in the 80th percentile (80% of students sent less than her)

Part B

105. The median is the 50th percentile, as it is the middle (median) of the data

Question 9

Part A

$$\text{IQR} = 75\text{th percentile} - 25\text{th percentile} = 45\$ - 19\$ = 26\$$$

Part B

30th percentile

Question 11

$$\text{Elanor: } z = (680 - 500)/100 = 1.8$$

$$\text{Gerald: } z = (27 - 18)/6 = 1.5$$

Eleanor had the higher score

Question 15

Part A

$$\% = 22/29 = 75.86\% = 76\text{th percentile}$$

Lidge's salary was higher than 76% of other players

Part B

$$z = (6350000 - 3388617)/3767484 = 0.786$$

This means that Lidge's salary is 0.786 of a standard deviation away from the mean of the team.

Question 19

Part A

$$\text{Mean}' = \text{Mean} + 18 \text{ in} = 69.188 + 18 = 87.188$$

$$\text{Median}' = \text{Median} + 18 \text{ in} = 69.5 + 18 = 87.5$$

Part B

$$\text{Stddev}' = \text{Stddev} = 3.20$$

$$\text{IQR}' = \text{IQR} = Q3 - Q1 = 3.25$$

Question 21

Part A

$$\text{Mean}' = \text{Mean} \cdot (1 \text{ ft}/12 \text{ in}) = 5.766 \text{ ft}$$

$$\text{Median}' = \text{Median} \cdot (1 \text{ ft}/12 \text{ in}) = 5.792 \text{ ft}$$

Question 31

Part A

Mean: C

Median: B

Part B

Mean: B

Median: B

Question 33: **C**

Question 34: **B**

Question 35: **C**

Question 36: **B**

Question 37: **D**

Question 38: **E**