

Self-Check 25 Measures of Center and Dispersion

Average Lifespan for Men

Britain	74	United States	73
Netherlands	75	Haiti	47
Mexico	70	Greece	76
Sweden	76	Germany	73
Spain	74	Russia	57
France	74	Italy	75
Norway	74	Switzerland	75

Source: <http://www.efmoody.com/longterm/lifespan.html>

Use a graphing calculator when appropriate.

1. What is the range of this sample?

- A. 2
- B. 29
- C. 47
- D. 76

2. What is the standard deviation of this sample?

- A. 2.00
- B. 8.39
- C. 65.28
- D. 47

3. What is the interquartile range?

- A. 2
- B. 29
- C. 47
- D. 76

4. Which of these measures of dispersion is least affected by the inclusion of the data for Haiti?

- A. Range
- B. Interquartile Range
- C. Standard Deviation
- D. All are affected equally

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1. What is the range of this sample?

$$\text{Max} - \text{Min} = \text{Range}$$

$$76 - 47 = 29$$

B. 29

3. What is the interquartile range?

$$Q_3 - Q_1 = \text{Interquartile Range}$$

$$75 - 73 = 2$$

A. 2

2. What is the is the standard deviation of this sample?

Sample standard deviation

$$S_x = 8.389226477$$

Note: Population standard deviation

$$\delta_x = 8.084060911$$

B. 8.39

4. Which of these measures of dispersion is least affected by the inclusion of the data for Haiti?

Interquartile Range