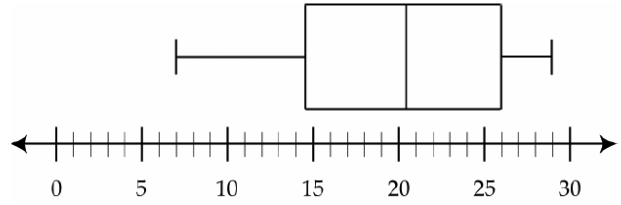


Interpreting Box-and-Whisker Plots

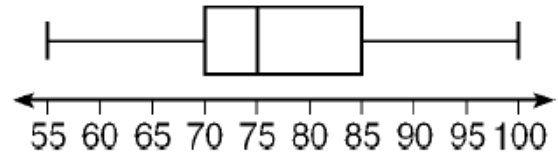
1) The accompanying box-and-whisker plot represents the cost, in dollars, of twelve CD's.

- Which cost is the upper quartile?
- What is the range of the costs of the CD's?
- What is the median?
- Which cost represents the 100th percentile?
- What percentage of CD's cost between \$14.50 and \$26.00?
- What percentage of CD's cost less than \$14.50?



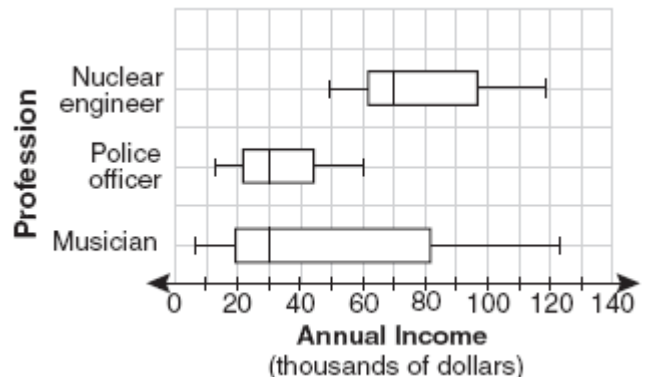
The box-and-whisker plot to the right represents the scores earned on a math test. Use for #2-5.

- What is the median score?
(A) 75 (B) 85 (C) 70 (D) 77
- What score represents the first quartile (Q1)?
(A) 55 (B) 100 (C) 70 (D) 75



- What statement is *not* true about the box and whisker plot shown?
(A) 75 represents the mean score (C) 85 represents the 3rd quartile
(B) 100 represents the maximum score (D) 55 represents the minimum score
- A score of an 85 on the box-and-whisker plot shown refers to:
(A) Q3 (B) the median (C) the maximum score (D) the mean
- The box-and-whisker plots can be used to compare the annual incomes of three professions. Based on the box-and-whisker plots, which statement is true?

- The median income for nuclear engineers is greater than the income of all musicians.
- The median income for police officers and musicians is the same.
- All nuclear engineers earn more than all police officers.
- A musician will eventually earn more than a police officer.



Measures of Central Tendency: Mean and Median

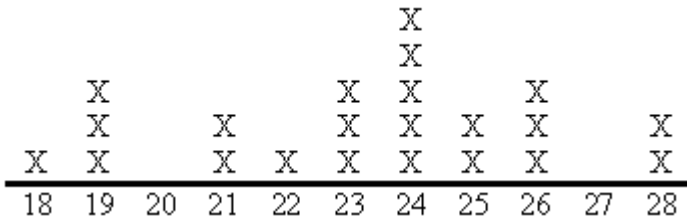
Mean: the average of a data set

Median: the middle number in a data set (when the numbers are in order)

**Note: if there is no middle number, find the average of the two middle numbers.

- Find the median 12, 18, 24, 13, 15, 17 _____

Dot Plot Practice



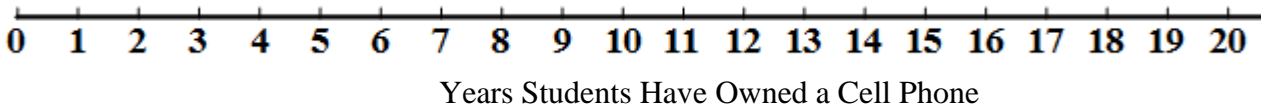
Number of Texts Sent Per Day

- 1) What is the range?
- 2) What is the median?
- 3) What is the mean?
- 4) How many students send *less than* 23 texts per day?

5) Ask 12 different students how many years they have owned a cell phone and record their answers in the boxes. Round to the nearest year (can be 0). You can include yourself. Don't worry about writing names.

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6) Using the number line below, plot the number of years that the **12 students** have owned a cell phone.



- a) Find the mean.
- b) Find the median.

7) Now ask Ms. Linton how many years she has had a cell phone and put that number on the number line.

Her point is now an _____ on the dot plot.

- a) Find the new mean.
- b) Find the new median.

8) Which changed more when the new point was added, the median or mean?

9) **Conclusion: Outliers** affect the _____ more significantly.

Comparing Means and Medians

	Number of burgers eaten this year
Arlo	23
George	74
Andrew	26
Gavin	18
Jah-Sua	27

1) Using the table to the left, find the mean and median.

Mean: _____ Median: _____

2) Which is larger, the mean or the median? _____

3) Which is a more accurate representation of the data, the mean, or the median? Why?