

Indicators

Objective:

4.02 Calculate, use, and interpret the mean, median, mode, range, frequency distribution, and inter-quartile range for a set of data.

Vocabulary and Resources		
box-and-whisker plot	upper quartile	inter-quartile range
quartile	third quartile	measures of central tendency
lower quartile	minimum value	
first quartile	maximum value	
middle quartile/median	outlier	frequency table
second quartile	range	interval

A. John received the following grades on the first five tests of the grading period: 84, 92, 84, 75, 70. What is the minimum grade he needs to receive on the next test in order to have a C (84) average on his tests? What is the range of these six grades?

B. Give an example of a situation involving a set of data with at least fifteen different numbers for which the mean, median and mode are all the same number. Identify the range, inter-quartile range, lower quartile and upper quartile for this set of data.

C. The yearly salaries of the five top executives at the Bigwig Corporation are \$1,000,000; \$250,000; \$130,000; \$90,000; and \$90,000. If you calculate the mean, median, and mode for these salaries and place these values in order from highest to lowest, the order would be:

- a) mean, median, mode b) mode, median, mean
c) median, mean, mode c) mean, mode, median

(From SREB publication *Getting Students Ready for Algebra I: What Middle Grades Students Need to Know and Be Able to Do*)

D. A group of seventh grade students took a test and these scores were recorded:

Score	Students
95	27
85	34
75	21
65	18

Find the mean, median, mode and range for this set of data.