

Mean, Median, and Mode

Math 111

1. At three high schools, the mean scores on a standardized test were as shown on the table. Find the mean score of all 150 students.

School	Students	Mean score
A	40	80
B	50	78
C	60	83

2. Twenty students reported the numbers of children in their families. The mean number was 1.6, the median was 1.5, and the mode was 1.0. A student from a family with three children joins the group. Find the new mean, median, and mode.
3. Suppose I give a test and the median score is 90 but the average is only 75. Does this mean that more than half of the class is above average (on this test)? Explain why or why not.
4. Find the following averages without a calculator. Use the trick to simplify the numbers before you average them.
 - (a) 45, 48, 42
 - (b) 102, 107, 104, 103
 - (c) 29, 30, 30, 31, 35

5. According to Thucydides in his *History of the Peloponnesian War*, the Plateans wanted to climb over their enemy's walls. To do this:

They made ladders equal in height to the enemy's wall. The measure of this they learned from the rows of brick, where the side of the wall facing them was not covered over with plaster. Several persons were appointed to count the rows at the same time; some of them might probably be wrong, but the greater part would agree in the [correct] computation; especially, as they counted them several times over, and were besides at no great distance, since the part marked out for the design was plainly within their view. In this method, having guessed the measure of a brick from its thickness, they found out what must be the total height for the ladders.

Which measure of central tendency did the Plateans use to measure the walls - mean, median, or mode?

6. Use the histogram below to find the mean, median and mode.

