PROBLEM-OF-THE-DAY: ALGEBRA 1

WEEK: August 20 to August 24 **DAY:** Thursday

RISD Objective: Given a set of data, students will find the measures of central tendency and the range of the data.

PROBLEM #4

The following stem-and-leaf plot shows the weights of the players of Carter High School's freshman football team.

Weights of Freshman Football Team

12	5, 9
13	1, 4, 9
14	6, 6, 8, 9
15	0, 3, 4, 4
16	0, 0, 2, 6, 5
17	1, 7

Key: 12|5 = 125 lbs.

a) Find the current median weight of the freshman football team.

b) A new student joins the team. This student weighs more that 160 pounds. How will this affect the median weight?

MODEL SOLUTION #4

a) Since there is an even number of weights, we must average the middle two. In this case, the middle weights are 150 and 153. The average of them is 151½ pounds, the current median weight of the team.

b) With the addition of a player, there are now an odd number of players and the median is simply the middle number when arranged in numerical order. Since the new player weighs more than 160 pounds, the middle number will be 153. Therefore, the new median would be 153 pounds.