

## Algebra I EOC Practice #26

**SPI 3102.5.2: Identify the effect on mean, median, mode, and range when values in the data set are changed.**

- The mean amount of apples purchased at a grocery store daily is 108 apples. What is the new mean if the amount of apples purchased triples?
  - 108
  - 216
  - 324
  - There will not be a change.
- Vanessa has 17 quarters, 8 dimes, 15 pennies, and 14 nickels in a piggy bank. Which of the following measures of central tendency will change if she spends 4 quarters to get a soft drink?
  - mean
  - median
  - mode
  - None will change.
- The range of a set of data is 15. If each member of this set is multiplied by 2, what is the range of the new set of data?
  - 15
  - 30
  - 45
  - 225
- Julie has a data set for which the mean is 41. Each value of the data set is multiplied by 7. What is the mean for the new data set?
  - 287
  - 144
  - 41
  - 7
- Manuel observes that students in his classroom purchase drinks in the cafeteria as follows:  
7 chocolate milks, 8 sport drinks, 5 waters, 4 white milks, and 4 juices  
Two students are added to the class, and they both choose juice. How does that affect the median?
  - It will not affect the median.
  - There is not a median
  - The number of juice drinks will double.
  - The median will be 6.
- Mike runs an average of 2 miles per day. He is going to begin training for cross-country and wants to double the amount he runs per day. How will this affect the average amount he runs?
  - There will be no change in his average.
  - His distance will increase by 2 miles per day.
  - His average will double.
  - His average distance will increase by 3 miles.
- This set of data shows the scores that Tyler earned on his last 7 Algebra I tests. If the two lowest scores are dropped, which statement is true?  
{97, 88, 93, 100, 85, 90, 80}
  - The mean will increase by 5 pts.
  - The median will increase by 3 pts.
  - The range will decrease by 8 pts.
  - The mean will increase by 7 pts.