

Comparing Scores Using Standard Deviation

Scholastic Aptitude Test Scores Mean and Standard Deviation			
Math		English	
mean:	514	mean:	488
standard deviation:	117	standard deviation:	114

For each student below, determine which test score is relatively higher, the mathematics score or the writing. Plot their scores on the number line below.

Student	Math Score	Writing Score	Math z-score $\frac{X - \mu}{\sigma}$	Writing z-score $\frac{X - \mu}{\sigma}$	Higher Score
Student A	750	715			
Student B	425	438			
Student C	516	490			

Calculate 1, 2, and 3 standard deviations from the mean for Math and English scores, then label the number line with them. Plot both students' Math and English scores on the number line below.

