Outliers, or data which exceeds a given number of standard deviations from the mean of a data set which is normally distributed, are regularly discussed in elementary statistics courses. However, on a normal distribution, instructors realize that Chebyshev’s Inequality guarantees that the probability is relatively low that data exceed merely 2 standard deviations from the mean and that the probability is small indeed that data would exceed 3 standards deviations from the mean.

This investigation employs contrived data to investigate the concepts of standard deviations and outliers for which real world data may rarely be applicable to demonstrate. (Received September 14, 2004)