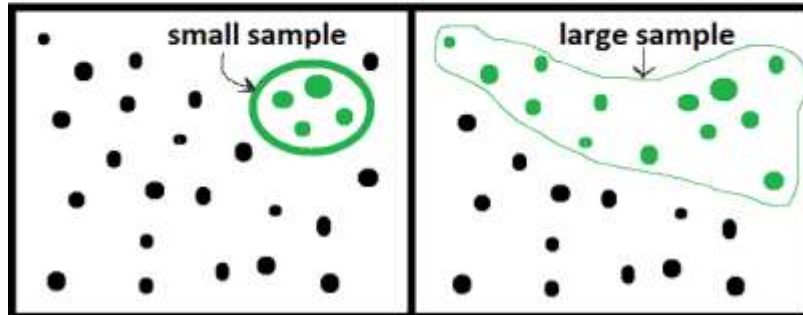
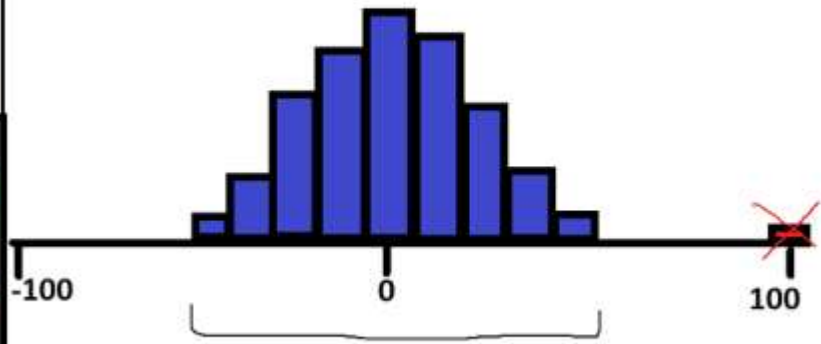


What Affects Standard Deviation?

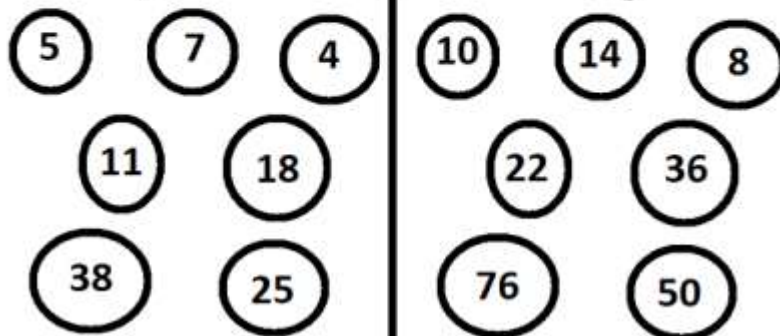
A larger sample size means ...  ... a smaller sample standard deviation!



Removing outliers will result in a smaller standard deviation.



Scaling (multiplying or dividing all data values by a constant factor F) will change the standard deviation by a factor of $|F|$.
 $SD = 12.5$ $\xrightarrow{\times 2}$ $SD = 25$



Changing units (such as feet to inches) will also change standard deviation.

units: feet $\xrightarrow{\times 12}$ units: inches
 (12 inches per foot)

standard deviation: 5.5 feet | standard deviation: 66 inches