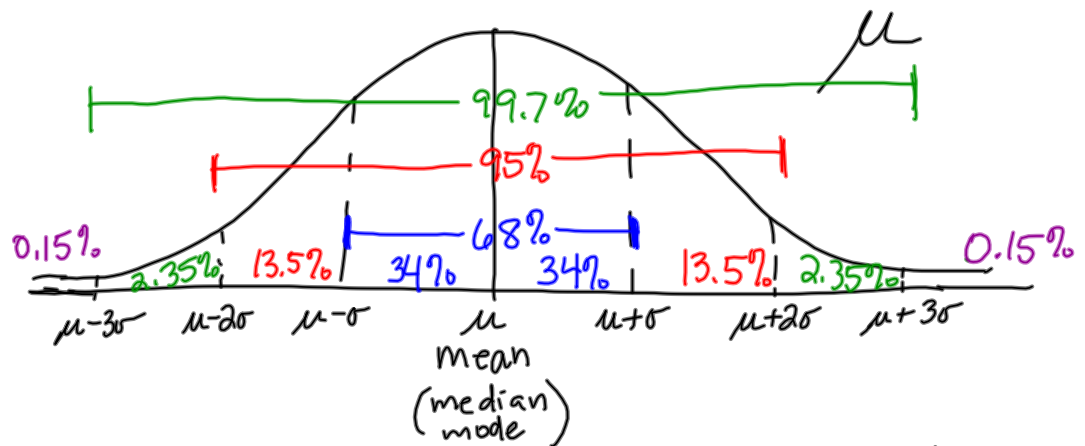


## Sec. 6.3 Use Normal Distributions



$\sigma \rightarrow$  standard deviation

68%  $\rightarrow$  within  $1\sigma$

95%  $\rightarrow$  within  $2\sigma$

99.7%  $\rightarrow$  within  $3\sigma$

### Z-scores

"standardize"

$$Z = \frac{\overset{\text{data}}{X} - \mu}{\sigma}$$

$\mu \rightarrow$  mean  
 $\sigma \rightarrow$  S.D.