$$\mu = \frac{\Sigma x_i}{N} \qquad \bar{x} = \frac{\Sigma x_i}{n}$$

$$\sigma^2 = \frac{\Sigma (x_i - \mu)^2}{N} \qquad s^2 = \frac{\Sigma (x_i - \bar{x})^2}{n-1}$$

$$\sigma = \sqrt{\sigma^2} \qquad s = \sqrt{s^2}$$

Chebychev's $[1 - (1/k^2)]$

$$CV = \frac{\sigma}{\mu} \times 100\% \qquad CV = \frac{s}{\bar{x}} \times 100\%$$

$$z = \frac{x - \mu}{\sigma} \qquad z = \frac{x - \bar{x}}{s}$$

$$z = \frac{\bar{x} - \mu}{\sigma/\sqrt{n}} \qquad z = \frac{\bar{x} - \mu}{s/\sqrt{n}} \qquad \sqrt{\frac{N-n}{N-1}}$$

$$z = \frac{\hat{p} - p}{\sqrt{\frac{p(1-p)}{n}}}$$

$$\bar{x} \pm z\frac{\sigma}{\sqrt{n}} \qquad \bar{x} \pm t\frac{s}{\sqrt{n}}$$

$$\hat{p} \pm z\sqrt{\frac{\hat{p}(1-\hat{p})}{n}}$$

$$n = \frac{z^2\sigma^2}{ME^2}$$