توزیع های نمونه ای

$Z = \frac{\bar{X} - \mu}{\sigma/\sqrt{n}} \sim N(0,1)$	$T = \frac{\bar{X} - \mu}{S/\sqrt{n}} \sim t(n-1)$
$\frac{\sum (X_i - \bar{X})^2}{\sigma^2} = \frac{(n-1)S^2}{\sigma^2} \sim \chi^2_{(n-1)}$	$F = \frac{V/n_1}{U/n_2} \sim F(n_1, n_2)$ $V \sim \chi^2_{(n_1)}$, $U \sim \chi^2_{(n_2)}$ U , V مستقل از هم

$\frac{\hat{p} - p}{\sqrt{\frac{pq}{n}}} \sim N(0,1)$	$\frac{\hat{p}_1 - \hat{p}_2 - (p_1 - p_2)}{\sqrt{\frac{p_1 q_1}{n_1} + \frac{p_2 q_2}{n_2}}} \sim N(0,1)$
$F = \frac{S_1^2/\sigma_1^2}{S_2^2/\sigma_2^2} \sim F(n_1 - 1, n_2 - 1)$	$\frac{\bar{X} - \bar{Y} - (\mu_1 - \mu_2)}{\sqrt{\frac{\sigma_1^2}{n_1} + \frac{\sigma_2^2}{n_2}}} \sim N(0,1)$