ISL 207 İSTATİSTİK I FİNAL SINAVI FORMÜLLER

- $\bar{X} = \frac{\sum X_i}{n}$
- $\mu = \frac{\sum X_i}{N}$
- $\bar{X} = \frac{\sum f_i X_i}{\sum f_i}$
- $\bar{X} = \frac{\sum k_i X_i}{\sum k}$
- $GO = \sqrt[n]{X_1 X_2 X_3 \dots X_n}$
- $logGO = \frac{\sum logX_i}{n}$
- $logGO = \frac{\sum f_i logX_i}{\sum f_i}$
- $HO = \frac{n}{\sum \frac{1}{X_i}}$
- $HO = \frac{\sum f_i}{\sum f_i \frac{1}{X_i}}$
- $KO = \sqrt{\frac{\sum X_i^2}{n}}$
- $KO = \sqrt{\frac{\sum f_i X_i^2}{\sum f_i}}$
- $Mod = AS + \frac{\Delta_1}{\Delta_1 + \Delta_2} c$
- $Medyan = AS + \frac{\frac{n}{2} - B_{f-1}}{SF} c$
- $Kartil\ Yeri = K_i = \frac{i(n+1)}{4}$
- $Desil\ Yeri = D_i = \frac{i(n+1)}{10}$

- $DA = R = X_{max} - X_{min}$
- $KAF = IQR = Q_3 - Q_1$
- $OS = MD = \frac{\sum |X_i - \bar{X}|}{n}$
- $OS = MD = \frac{\sum f_i |X_i - \bar{X}|}{\sum f_i}$
- $\sigma^2 = \frac{\sum (X_i - \mu)^2}{N}$
- $s^2 = \frac{\sum (X_i - \bar{X})^2}{n-1}$
- $s^2 = \frac{1}{n-1}\left[\sum X_i^2 - \frac{(\sum X_i)^2}{n}\right]$
- $s^2 = \frac{\sum f_i (X_i - \bar{X})^2}{\sum f_i - 1}$
- $DK = VC = \frac{s}{\bar{X}}$
- $M_r = \frac{\sum X_i^r}{n}$
- $M_r = \frac{\sum f_i X_i^r}{\sum f_i}$
- $\mu_r = \frac{\sum (X_i - \bar{X})^2}{n}$
- $\mu_r = \frac{\sum f_i (X_i - \bar{X})^2}{\sum f_i}$
- $\mu_2 = M_2 - M_1^2$
- $\mu_3 = M_3 - 3M_1 M_2 + 2M_1^3$
- $\mu_4 = M_4 - 4M_1 M_3 + 6M_1^2 M_2 - 3M_1^4$

- $Çarpıklık = \frac{\bar{X} - Mod}{s}$
- $Çarpıklık = \frac{3(\bar{X} - Medyan)}{s}$
- $\gamma_3 = \frac{\mu_3}{s^3}$
- $\gamma_4 = \frac{\mu_4}{s^4} - 3$
- $b(x; n, p) = \binom{n}{x} p^x q^{n-x}$
- $g(x; p) = pq^{x-1}$
- $b^*(x; n, p) = \binom{n-1}{x-1} p^x q^{n-x}$
- $p(x; \gamma) = \frac{\gamma^x e^{-\gamma}}{x!}$
- $z = \frac{X - \mu}{\sigma}$
- $z = \frac{X - \mu}{\sigma} = \frac{(X \pm 0.5) - np}{\sqrt{npq}}$
- $n = \frac{N Z_{\alpha/2} \sigma^2}{(N-1)d^2 + (Z_{\alpha/2})^2 \sigma^2}$
- $n = \frac{(Z_{\alpha/2})^2 \sigma^2}{d^2}$
- $n = \frac{pq (Z_{\alpha/2})^2}{d^2}$
- $\sigma_{\bar{X}} = \frac{\sigma}{\sqrt{n}}$
- $z = \frac{\bar{X} - \mu}{\frac{\sigma}{\sqrt{n}}}$