

(21)

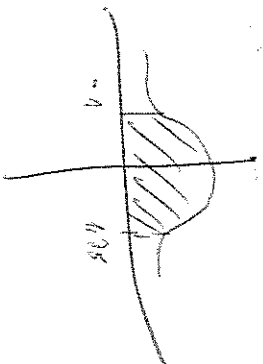
~~Ala~~  $X \sim N(60; 40)$

$n=100$

$\bar{X} \sim N(60, 4)$

$$P(56 < \bar{X} < 64) = P\left(\frac{56-60}{4} < T < \frac{64-60}{4}\right) = P(-1 < T < 1)$$

$$P_1 = \Phi(1) + \Phi(1) = 0,7443 + 0,4588 = 0,8012$$



Corollari 33-36

$$Y_m = \frac{X_m}{n} \rightarrow Y_m \sim N\left(\mu, \sqrt{\frac{\sigma^2}{n}}\right)$$

7. ud (33)

$n=150$

$p=0,4$

$q=0,6$

$$P\left(\frac{51}{150} < Y_m < \frac{66}{150}\right)$$

$$Y_m \sim N\left(0,4, \sqrt{\frac{0,4 \cdot 0,6}{150}}\right) \Rightarrow \sim N(0,4; 0,04)$$

$$P = (0,34 < Y_m < 0,5) = P\left(\frac{0,34-0,4}{0,04} < T < \frac{0,5-0,4}{0,04}\right)$$

$$= P(-1,5 < T < 2,5) = \Phi(2,5) + \Phi(1,5) = 0,9838 + 0,4332 = 0,822$$