

$$(139) \quad \hat{\mu} = 10400 \quad \sigma = 85 \quad \hat{\mu} = \bar{X}_n^{(11)}$$

$$T = \frac{\bar{X}_n^{(11)} - \mu}{\sigma/\sqrt{n}} = \frac{10400 - \mu}{85/\sqrt{40}}$$

$$\gamma = 56\% = P(-q_{56\%} < T < q_{56\%}) = P(-q_{56\%} - 0.15 < \frac{10400 - \mu}{13.44} < 0.15) =$$

$$P(-2.016 < 10400 - \mu < 2.016) = P(10398 < \mu < 10402)$$

$$(10398, 10402) \subseteq [0.999\alpha, 1.001\alpha]$$