Lecture 26 Summary (Chapter 7 and Chapter 8)

**Example 6** The population distribution of the gripping strength of industrial workers has $\mu = 110$ and $\sigma = 10$. For a random sample of size $n = 75$,

\[
P(\bar{X} > 111) \approx P \left( Z > \frac{111 - \mu}{\sigma / \sqrt{n}} \right) = P \left( Z > \frac{111 - 110}{10 / \sqrt{75}} \right)
= P(Z > .87) = P(Z < -.87) = .1922
\]

**Computing:** Central Limit Theorem and Checking Normality