Exam 5 Review

Note: This is not a complete list of topics – you should study your lecture notes and homework in addition to reviewing the items listed here.

1. Confidence intervals
   a. A $(1-\alpha)100\%$ CI about μ, σ known: $\bar{x} \pm z_{\alpha/2} \cdot \frac{\sigma}{\sqrt{n}}$.
      i. Margin of error: $E = z_{\alpha/2} \cdot \frac{\sigma}{\sqrt{n}}$
      ii. Sample size necessary: $n = \left(\frac{z_{\alpha/2} \cdot \sigma}{E} \right)^2$.
   b. A $(1-\alpha)100\%$ CI about μ, σ unknown: $\bar{x} \pm t_{\alpha/2} \cdot \frac{s}{\sqrt{n}}$.