**Test 3 Review Sheet – Math 2620**

This is a review for Test 3 which covers Chapters 5.5-5.6, 6, and 7 of the text and anything we have discussed in class.

**Overview**

The test will have 20-25 Multiple Choice questions and 10-15 True/False questions. You will need your calculator. A formula sheet is provided (shown below).

**Review**

1. Chapter 5
2. Know: (a) the parameters for the normal distribution, (b) how they affect the shape of the graph, (c) how to graph normal distribution, (d) indicate probabilities on a graph.
3. Know how to calculate normal probabilities.
4. Know: (a) how to graph a sampling distribution, (b) how to calculate probabilities from sampling distributions.
5. Definition of standard error of the mean and how to calculate.
6. State the Central Limit Theorem and why it is useful.
7. Chapter 6
8. Definitions (T/F?)
9. Behavior of a confidence interval (T/F?)
10. Find CI on mu for large samples.
11. Find CI on mu for small samples. Know conditions for use.
12. Find sample size for a problem about averages.
13. Find CI on p. Know conditions for use.
14. Find sample size for a problem about proportions.
15. Chapter 7
16. Definitions (T/F?)
17. What are the steps in HT? (T/F?)
18. Know how to write down hypotheses.
19. What is a p-value?
20. Do HT on u with a large sample.

**Formula Sheet**

You will be provided a formula sheet exactly as shown below:

* $\overbar{x}\pm z\_{α/2}\frac{σ}{\sqrt{n}}$
* $n=\left(\frac{z\_{α/2}σ}{E}\right)^{2}$
* $\overbar{x}\pm t\_{α/2,n-1}\frac{s}{\sqrt{n}}$
* $\overbar{p}\pm z\_{α/2}\sqrt{\frac{\overbar{p}(1-\overbar{p})}{n}}$
* $n=\left(\frac{z\_{α/2}}{E}\right)^{2}\overbar{p}(1-\overbar{p})$