Quiz 8
Math 113 — Due Oct. 20 in class — Covers 8.3-8.4

Take Home Quiz Instructions:
This quiz is to be done without help from any human being. You are not allowed to use notes or a text or a calculator. You are only allowed to use your brain, a writing device, and the paper for this quiz. You should not discuss the contents of this quiz with anyone until after the due date. In addition, do not spend more than 20 minutes on the quiz. If you do not know how to solve a problem, you are permitted to cross it out, and then after completing the quiz you may make your corrections as you normally would. This will hopefully speed up your time between taking the quiz and making corrections. Also, if after taking the quiz, you realize you did a problem incorrectly, feel free to cross out the problem, and then make your corrections in a new workspace.

You must sign below this paragraph to signify that you accept the terms of this quiz.

I did not talk to anyone about this quiz. I did not use notes, a text, or a calculator to take this quiz. I did not take more than 20 minutes to complete the quiz.
1. State whether the following converges or diverges. Make sure you justify your answer and check every hypothesis of any convergence test that you use. \[ \sum_{n=1}^{\infty} ne^{-n/2} \]

2. State whether the following converges or diverges. Make sure you justify your answer and check every hypothesis of any convergence test that you use. \[ \sum_{n=1}^{\infty} \frac{1}{\sqrt{n^3 + 1}} \]

3. State whether the following converges or diverges. Make sure you justify your answer and check every hypothesis of any convergence test that you use. \[ \sum_{n=1}^{\infty} \frac{n}{(n + 1)2^n - 1} \]