1. Write up the student study guide solution to 10.5.58.

2. Write up the student study guide solution to the following problem: Use the Alternating Series Test to estimate \( \sum_{n=1}^{\infty} (-1)^{n+1} \frac{1}{10^n} \) with error \( \leq 1/10000 \). Then use the Geometric Series Test to compute the exact error associated with your estimate.