MATH 107H Quiz 5

Name:_____

Score:

Instructions: You must show supporting work to receive full and partial credits. No text book, notes, formula sheets allowed.

1(3pts) Find the sum $\sum_{n=3}^{\infty} (-1)^{n-1} \frac{3}{5^n}$

2(2pts) Determine if the infinite series converges $\sum_{n=1}^{\infty} \frac{1}{e^{1/n}}$

3(2pts) Use logarithmic technique to find the limit $\lim_{n\to\infty} \left(\frac{1}{n}\right)^{1/(\ln n)}$

4(3pts) Use the Integral Test to determine if $\sum_{n=2}^{\infty} \frac{1}{n \ln n}$ converges.