Name:
Student ID #:

Question 1. Find the sum of the sequence $\displaystyle\sum_{i=2}^{\infty} \frac{3^n - (-2)^n}{5^n}$.

Question 2. Decide whether the following series converge or diverge.

(1) $\displaystyle\sum_{n=1}^{\infty} n! e^{-(n!)}$,

(2) $\displaystyle\sum_{n=1}^{\infty} \frac{\ln n}{\ln n!}$

Your Solution.