LAST NAME: FIRST NAME:

Math 65B - Summer 2016

Quiz 9: Tuesday July 12, 2016

---

1. (1 point) Determine whether the series converges or diverges. If it converges, find its sum.

$$\sum_{n=1}^{\infty} \left(\frac{1}{e^n} + \frac{1}{n(n+1)} \right)$$

Please, show all work.

2. (1 point) Determine whether the series converges or diverges.

(a) $\displaystyle\sum_{n=1}^{\infty} ne^{-n}$

(b) $\displaystyle\sum_{n=1}^{\infty} \frac{\arctan(n)}{n^3}$

(c) $\displaystyle\sum_{n=1}^{\infty} \frac{1+5^n}{1+2^n}$

Please, show all work.