

**Quiz 8A****Name:****UAlbany Email:**

Closed book/notes. No calculators allowed. Show all your work.

1. Do the following series converge or diverge? Justify your answer. If the series converges, find what number it converges to.

(a)  $\sum_{n=1}^{\infty} (e^{-n} - e^{-n+1})$

(b)  $\sum_{n=1}^{\infty} n$

(c)  $\sum_{n=0}^{\infty} \frac{3}{2^{n+1}}$