

## Quiz 7

Five points each.

Do the following series converge or diverge? Justify your answer.

1.  $\sum_{n=1}^{\infty} \frac{e^{\frac{1}{n}}}{n^2}$ .

2.  $\sum_{n=2}^{\infty} (-1)^n \left[ \ln \sqrt{n+1} - \frac{1}{2} \ln n \right]$