

Name : Id #..... List no:

Test the Series for Convergence or Divergence. Give all details.

1. $\sum_{n=1}^{\infty} \frac{(-1)^n 2^n}{e^n}$. (Alternating Series Test.)

2. $\sum_{n=1}^{\infty} n \tan\left(\frac{1}{n}\right)$.

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

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

5. $\sum_{n=1}^{\infty} \frac{(x-2)^n}{n^n}$ Ratio Test. Find R and the Interval.

6. $\sum_{n=1}^{\infty} \frac{(-2)^n}{n^n}$.