

King Fahd University of Petroleum and Minerals  
Department of Mathematics and Statistics  
Math 102 (181) Sec 02 - Quiz 4

Name:

ID:

Serial No.:

1. Determine whether the series  $\sum_{n=1}^{\infty} \frac{1+2^n}{3^n}$  is convergent or divergent. If it is convergent, then find its sum.

2. Determine whether the series  $\sum_{n=2}^{\infty} \frac{e^{1/n}}{n^2}$  is convergent or divergent.

3. Determine whether the series  $\sum_{n=1}^{\infty} \frac{\sqrt{n^4 + 1}}{n^3 + n^2}$  is convergent or divergent.

4. Determine whether the series  $\sum_{n=1}^{\infty} (-1)^n \frac{n}{\sqrt{n^3 + 2}}$  is convergent or divergent.