

King Fahd University of Petroleum & Minerals

Department of Mathematical Sciences

MATH - 102-02

Semester 121

Quiz - 4

Name: _____ ID# _____

Problem .

Determine the convergence or divergence of the following series

$$\sum_{n=1}^{\infty} \frac{\cos n\pi}{\sqrt{n+1}}, \quad \sum_{n=1}^{\infty} \left(\frac{n}{2n+1} \right)^n, \quad \sum_{n=1}^{\infty} \frac{(2n)!}{n^5}$$