

KING FAHD UNIVERSITY OF PETROLEUM AND MINERALS
DEPARTMENT OF MATHEMATICS AND STATISTICS
MATH 102 - QUIZ 7

Name:

Student ID #:

Question. Determine whether the following series converge or diverge. Explain your conclusion.

$$(1) \sum_{k=1}^{\infty} \frac{(-1)^k k}{(k+1)e^k}$$

$$(2) \sum_{k=2}^{\infty} \frac{10 - k^2}{k!}$$

$$(3) \sum_{k=2}^{\infty} \frac{1}{\ln^k(k)}$$

$$(4) \sum_{k=1}^{\infty} \frac{\cos(k\pi/6)}{k^2}$$

Your Solution.