

King Fahd University of Petroleum & Minerals  
Department of Mathematical Science- MATH-102-Term051-Quiz #6

Name: \_\_\_\_\_

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Q1. Determine whether the following series converges and if so find its sum.

$$\frac{1}{2.3} + \frac{1}{3.4} + \frac{1}{4.5} + \cdots + \frac{1}{(k+1)(k+2)} + \cdots$$

Q2. Use any method to determine whether the series converges

a.  $\sum_{k=1}^{\infty} \left(1 + \frac{2}{k}\right)^{-2k}$

b.  $\sum_{k=0}^{\infty} \frac{(k!)^2}{(2k)!}$

