

**KING FAHD UNIVERSITY OF PETROLEUM AND MINERALS**  
**DEPARTMENT OF MATHEMATICS AND STATISTICS**  
**MATH 102 - QUIZ 5**

Name:

Student ID #:

**Question 1.** Determine whether the series is convergent or divergent. If it is convergent find its sum.

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

**Question 2.** Determine using the Integral Test whether the series is convergent or divergent.

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

**Your Solution.**