Math 221 - Quiz #5 Name _____

You must show all relevant work to receive full credit. The point value of each problem is shown in the left hand margin.

(4) 1. Determine whether the sequence of partial sums of the series $\sum_{1}^{\infty} 5^{-n} - 7^{-n}$ converges.

(3) 2. Find the forth degree Taylor's formula for the function $f(x) = \cos x$ at a=0 with the remainder R_4 in Lagrange form.

(3) 3. Test $\sum_{1}^{\infty} \frac{1}{n(n+1)}$ for convergence.