Name: _____ **Quiz 4**

Math 152 Calculus II – Crawford **16 October 2015**

Books, notes (in any form), and calculators are not allowed. *Show all your work.* Good Luck!

1. (5 pts) Determine whether the following **series** converges or diverges. **If it is convergent, find its sum**.
Show all your work.

$$\sum_{n=1}^{\infty} \frac{4 \cdot 3^{n-1}}{2^{2n}}$$

2. (10 pts) Determine whether the following **series** converge or diverge. Show all your work and clearly state any test(s) used.

(a). $\displaystyle\sum_{n=1}^{\infty} \frac{3n^2 + \sqrt{n}}{n^2}$

(b). $\displaystyle\sum_{n=2}^{\infty} \frac{1}{n(\ln)^2}$