Quiz 2 **Calculus 2** **3/12/2014**

Each problem is worth 5 points. Clear and complete justification is required for full credit.
~~Answers should be submitted in person to Jon before 5pm on the due date.~~

1. Consider the sequence $a_n = \left\{\frac{3}{n^2}\right\}_{n=1}^{\infty}$. Find a_1, a_2, a_3, and a_4 to 3 decimal places.

plug a_n into $\frac{3}{(n)^2}$

$a_1 = 3.000$

$a_2 = .750$

$a_3 = .333$

$a_4 = .1875$ or $.188$ rounded up

2. Consider the series $\sum_{n=1}^{\infty} \frac{3}{n^2}$. Find the partial sums s_1, s_2, s_3, and s_4 to 3 decimal places.

$s_1 = a_1 = 3.000$

$s_2 = a_1 + a_2 = 3.000 + 0.750 = 3.750$

$s_3 = a_1 + a_2 + a_3 \approx 3.000 + 0.750 + 0.333 = 4.083$

$s_4 = a_1 + a_2 + a_3 + a_4 \approx 3.000 + 0.750 + 0.333 + 0.1875 \approx 4.271$