

QUIZ 11 SPRING 2009 MAT 127 LECTURE 1

Name:

SB ID:

1. Consider the power series

$$\sum_{n=1}^{\infty} (-1)^{n-1} \frac{(3x)^n}{n}.$$

- (a) Find the radius of convergence.  
(b) Find the interval of convergence.

2. Find the Taylor series and the radius of convergence for

$$f(x) = \frac{1}{x^2} \quad \text{at} \quad a = 7.$$

3. Find the sum of the series

$$\sum_{n=0}^{\infty} (-1)^n \frac{\pi^{2n+1}}{6^{2n+1} (2n+1)!}.$$