

MthU242
Northeastern University
Quiz #7
20 Minutes

Calculus II
Professor Gilmore
Mar. 13, 2008

Name: _____.

Show All Your Work

1. Find the radius of convergence and the center of convergence of the following power series.

a.
$$\sum_{n=3}^{\infty} \frac{3^n x^n}{(n-2)!}$$

b.
$$\sum_{n=0}^{\infty} \frac{7^n (3x-2)^n}{11^n}$$

2. Exhibit the following functions as power series. Give the first few terms of the series and the n th, or general term. Give your reasons.

a. $f(x) = \ln(1+2x)$

b. $g(t) = \frac{x^3}{(1+x)^2}$