MATH 152
Mrs. Bonny Tighe

QUIZ 9 A
25 points
12.9.12.10

NAME_____

Section_____ Wed 11/16/05

1. Find a power series representation for the function and determine the interval of convergence. $f(x) = \dfrac{1}{4 - x^2}$

2. Find a power series representation for the function and determine the radius of convergence.

a) $f(x) = \ln(2 - x)$

b) $f(x) = \dfrac{1}{(1 + x)^2}$

3. Find the Taylor series for f(x) centered at the given value of a.

a) $f(x) = \dfrac{1}{x}, \quad a = 1$

b) $f(x) = xe^{2x}, \quad a = -1$

5. Find the Maclaurin series of f and its radius of convergence. $f(x) = \sqrt{1+x}$

6. Evaluate the indefinite integral as an infinite series. $\displaystyle\int \sin(x^2)dx$