

MATH 152

Mrs. Bonny Tighe

**QUIZ 10**

25 points

12.11

NAME \_\_\_\_\_

Section \_\_\_\_\_ Wed. 5/3/06

1. Expand each of the following as a power series using the binomial series. State the radius and interval of convergence.
- a)  $(4 - x)^{1/2}$

b)  $\frac{1}{(1+x)^3}$

2. Use the binomial series to expand  $\sqrt[3]{1+x}$  as a power series and use this to estimate  $\sqrt[3]{1.02}$ .

3. Use the binomial series to expand a Maclaurin series for  $\sin^{-1} x$