

Math 231 Section A1
Quiz 8
July 12, 2007

Name: _____

- 1) Find a Taylor series for $f(x) = \ln(1 - x^3)$ and determine its interval of convergence. (HINT: does the derivative of $f(x)$ look like a function for which you know a Taylor series?)

2) Use your answer from Question 1 to approximate $\ln(1.001)$ accurate to within 10^{-9} .

Extra Credit: Find the Taylor series for $f(x) = \sin(x)$ with $a = \pi$.