

MATH 106A,B - CALCULUS II WINTER 2009

QUIZ 10

NAME:

Show ALL your work CAREFULLY.

(a) Find the interval of convergence of the following power series [Do not forget to check the endpoints!].

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

(b) Find a power series representation of $\ln(x+1)$. [What is the derivative of $\ln(x+1)$? Recall that $\frac{1}{1-t} = \sum_{n=0}^{\infty} t^n$ for $|t| < 1$.]