

Math 222 Quiz 6

October 21, 2010

Your Name:

Your Section:

Instructions: Time is 20 minutes and the total score is 10 points.

1. Find the radius of convergence for the series $\sum_{n=1}^{\infty} \frac{(x-1)^n}{n\sqrt{n}3^n}$. For what values of x does the series converge? (4 pts)
2. (a). Find the Taylor series generated by $f(x) = x^3 - 2x + 4$ at 2 (2 pts)
(b). Find the Maclaurin series expansion of $f(x) = \frac{1}{x^2+16}$ (4 pts)
Hint: Use the expansion for $\frac{1}{x+1}$. Here you should factor 16 out and replace x with a suitable expression.