
MATH 107H Quiz 7

Name: _____

Score: _____

Instructions: You must show supporting work to receive full and partial credits. No text book, notes, formula sheets allowed.

- 1(5pts)** Determine the following for the power series $\sum_{n=0}^{\infty} \frac{(2x-1)^n}{\sqrt{n}}$: a) The center and radius of convergence, b) interval of absolute convergence, c) interval of convergence, and d) intervals of divergence.

- 2(2pts)** Find the Maclaurin series for the function $x \cos \sqrt{x}$ using the Maclaurin series for $\cos x \sim \sum_{n=0}^{\infty} (-1)^n x^{2n} / (2n)!$.

- 3(3pts)** Find the Taylor polynomial of degree 3 for the function $f(x) = \sqrt{x}$ at $x = a = 9$.

(... The End)