WRITE YOUR NAME:

MAC 2312 WRITTEN HOMEWORK #11
Due Tuesday April 9th, in Canvas

Question 1. Find the degree 3 Taylor polynomial centered at 0 for the function $\tan(x)$. Use this to estimate $\tan(0.1)$, and compare this with the answer given by a calculator or computer.

Question 2. Find the interval of convergence of the power series.

$$\sum_{k=1}^{\infty} \frac{k(x-3)^k}{2^k}$$

Question 3. Express the function $f(x) = \ln(1 - 2x^3)$ as a power series. You may use the power series representations of other known functions.