

Your Name: _____

Your Partner: _____

Quiz 7

Math 253

You have 20 minutes to complete this quiz. When you're finished, first check your work if there is time remaining, then turn it in. You may use a scientific calculator, but not a graphing one, and not any internet-connected device. You may work with one other student. **Enough work should be shown that there is no question about the mathematical process used to obtain your answers.**

1. (4 points) What is the Maclaurin series for e^{2x} ? Hint: you can leverage a Maclaurin series you already know.
2. (8 points) Write an expression for the n th derivative of e^{2x} . Your answer should involve n .

3. (8 points) Find a value of N so that the N th Maclaurin polynomial is never farther than .1 away from e^{2x} on the interval $[-1, 1]$.