Name_____

Math 151 – Spring 2021

Taylor Polynomial Project part 1

Use the function $f(x) = e^{-x^2}$

1) Use the D command in Mathematica to find the 6th order derivative of the function *f(x)*

2) Find the 6th order Taylor polynomial for *f(x)* centered at *x = 0*

2) Make a plot on Mathematica that plots both of these functions (*f(x)* and the Taylor Polynomial) on the same axes on the domain $-4 < x < 4$

For this project. Upload a Mathematica file that executes the answers to questions 1 and 3 in one command. You don't need to show your work for part 2. But here's a hint. You can use the D command to find all your derivatives.