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MA 341
Fall 2021

Homework 4

Due October 6th at the beginning of class. Justify your answers. Please let me know if you have a question or find a mistake.

1. Part (a) of Exercise 10.1.6 from page 148.

2. Exercise 10.1.8 from page 148. In addition to the upper bound indicated there, also give a lower bound on the integral using the inequality $x^6 \leq 1$.

3. Exercise 10.1.9 from page 148. For the false one, it is enough to state what the functions f and g are in your counterexample; it is not necessary to fully explain why they are a counterexample.

4. Exercise 10.2.1 from page 148.

5. In the previous problem, how many terms of the series must you take to get an error in the approximation which is bounded by 10^{-6} when $0 \leq x \leq 10^{-1}$?