

Written HW10 – MATH 2501 Fall 2020

Due by 6 October for timely completion credit

Full credit on these problems require a fully symbolic derivation of the solutions. Determine the local extrema, intervals of increasing and decreasing, inflection points, and intervals of concave up and concave down for the following functions.

1. $f(x) = 2x^3 - 3x^2 - 12x$

2. $f(x) = x^2e^x$

3. $f(x) = \cos^2(x) - 2\sin(x)$