MEMORIAL UNIVERSITY OF NEWFOUNDLAND
DEPARTMENT OF MATHEMATICS AND STATISTICS

For practice only. Not to be submitted.

1. In each problem, find the intervals on which $f(x)$ is increasing, decreasing, concave upward and concave downward. Identify any relative extrema and points of inflection.

   (a) $f(x) = 3x^4 - 8x^3 + 6x^2$

   (b) $f(x) = \ln(1 + x^2)$