Given \( f(x) = 3x - 4x^2 - x^3 \), determine:

a) Critical Values:

b) Critical points:

c) Intervals where \( f(x) \) is increasing:

d) Intervals where \( f(x) \) is concave up:

decreasing:

d) Intervals where \( f(x) \) is concave down:

e) Point(s) of inflection, if any:

f) Relative Extrema: