Colby

April 3: Daily Vitamin

This daily vitamin will give you an opportunity to practice some of the concepts and/or calculations presented during class. The daily vitamin is not compulsory and won't be graded but remember: **if you take your vitamins, you'll be stronger for it!**

_____

1. Determine the nature of the critical points (i.e. local min/max, neither) of $f(x)$ and find global max/min on the given interval.

   (a) $f(x) = x^3 - 9x^2 + 15x + 1$, $\quad 0 \leq x \leq 4$.

   (b) $f(x) = 4x^6 - 7x^2 + 2$, $\quad -1 \leq x \leq 1$.

   (c) $f(x) = \dfrac{x}{1 + x^2}$, $\quad 0 \leq x \leq 5$.

   Solution: