March 15: 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!**

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1. Using the Rules of Differentiation, compute $f'(x)$, the derivative function.

    (a) $f(x) = (e^x + x + 2)^{100}$,

    (b) $f(x) = 3^{5x+1}$,

    (c) $f(x) = 2^{x\cos(x)}$,

    (d) $f(x) = \sqrt[3]{x^{\sqrt{3}} - x^2 + \pi^x}$,

    (e) $f(x) = \dfrac{e^{4x-1}}{(2x^2 + 1)^3}$.

    Solution: