

Quiz 2

June Weiland

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Problem 1. Calculate the derivative of the following functions using your favorite method.

(a) $f(x) = 10x^\pi + 3x - 4 - \sqrt[3]{x^2} + \frac{1}{x}$

(b) $g(x) = 5 \sin x + 6 \cos x$

(c) $y = e^x$.

Solution:

(a) $f(x) = 10\pi x^{\pi-1} + 3 - \frac{2}{3}x^{-1/3} - x^{-2}$.

(b) $g'(x) = 5 \cos x - 6 \sin x$.

(c) $y' = e^x$.