

PRACTICE QUIZ 7

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Time: 14 min

Time to beat: 5 min 30 sec

Problem 1. If $f(5) = 4$, $f'(5) = -6$, $g(4) = 5$, and $g'(4) = 8$, find $F'(4)$ if $F(x) = f(g(x))$.

Problem 2. Find the derivative for $f(x) = (x^2 - x + 1)^9(x^3 - 3x^2 + 1)^{12}$.

Problem 3. Find the derivative for $f(x) = \cos^3(4x)$.

Problem 4. Find the derivative for $f(x) = \tan^3(x) + \tan(x^3)$.

Problem 5. Find the equation of the tangent line to the curve $y = \frac{3}{\sqrt{16-6x}}$ at $x = 2$.