

Derivative Practice 50

Need a little extra practice with your derivatives? Try these!

- Find $\frac{dy}{dx}$ for $y = 32x^3 + 5x^9 - 2.5x^{1.2} + e^2$
- Find $\frac{dm}{dx}$ for $m = 5x^{-1.2} + 2x^{-3.5}$
- Find $\frac{dt}{dx}$ for $t = x^{-2} + 2x^{1/3}$
- Find $\frac{dt}{dm}$ for $t = 6m^{4/3} + 4m^{-1/2}$
- Find $\frac{dy}{dx}$ for $y = 10\sqrt{x^3} + \frac{3}{\sqrt[3]{x}}$
- Find $\frac{dy}{dt}$ for $y = \sqrt[3]{t^2} - \frac{1}{\sqrt{t^3}}$
- Find $\frac{dT}{dx}$ for $T = 6x^2 - \frac{5}{x} + \frac{2}{\sqrt[3]{x^2}}$
- Find $\frac{dy}{dt}$ for $y = -2t^{5/2} - \frac{4}{7t^3} + \frac{4t^3}{7}$
- Find $\frac{dy}{dx}$ for $y = (x^5 - 4x + 8)^7$
- Find $\frac{dy}{dw}$ for $y = 5(8 - 2x^4)^4$
- Find $\frac{dT}{dw}$ for $T = \frac{(4x^3 - x)^5}{10}$
- Find $\frac{dy}{dx}$ for $y = \frac{5}{(2x^5 - x^2)^3}$
- Find $\frac{dS}{dt}$ for $S = (2t^{-4} + 3t^{-2} + 2)^{-6}$
- Find $\frac{dS}{dt}$ for $S = (t^{-1} - 2t^{-2})^{-3}$
- Find $\frac{dy}{dz}$ for $y = \sqrt[4]{(z^4 + 7z^2)^3}$
- Find $\frac{dy}{dz}$ for $y = 4\sqrt{(z^4 + 7z^2)^3}$
- Find $\frac{dz}{dx}$ for $z = 7x + \sqrt{x^2 + 6}$
- Find $\frac{dz}{dx}$ for $z = 7x + \sqrt{x^2 + 6}$
- Find $\frac{dy}{dx}$ for $y = x^3(9x^3 + x)^5$
- Find $\frac{dy}{dx}$ for $y = (2x + 5)^3(3x - 1)^4$
- Find $\frac{dy}{dx}$ for $y = (6x - 7)^3(8x^2 + 9)^2$
- Find $\frac{dx}{dy}$ for $x = 2y(2y + 1)^2(2y - 3)^3$
- Find $\frac{dy}{dx}$ for $y = (x^2 + 4)^{5/3}(x^3 + 1)^{3/5}$
- Find $\frac{dy}{dx}$ for $y = (3x - 8)^{-2}(7x^2 + 4)^{-3}$
- Find $\frac{dP}{dx}$ for $P = \frac{(3x^2 - 1)^3}{(4x - x^2)^4}$
- Find $\frac{dP}{dx}$ for $P = \frac{(x^2 + 1)^2}{(2x - 3)^3}$
- Find $\frac{dy}{dx}$ for $y = \frac{3x^2 - 1}{\sqrt{4x + 8}}$
- Find $\frac{dy}{dx}$ for $y = \sqrt{\frac{2x + 5}{10x - 9}}$
- Find $\frac{dy}{dx}$ for $y = \left(\frac{8x^2 - 1}{1 - 9x^3}\right)^4$
- Find $\frac{dz}{dx}$ for $z = 5e^{8x^3 - 4x}$
- Find $\frac{dy}{dx}$ for $y = \frac{e^{4x}}{x + 1}$
- Find $\frac{dy}{dx}$ for $y = \frac{x + 1}{e^{4x}}$
- Find $\frac{dt}{dx}$ for $t = 5 \ln(3x - x^3)$
- Find $\frac{dm}{dt}$ for $m = \ln(\cos(t^2))$
- Find $\frac{dz}{dt}$ for $z = 4t^3 \ln(3t^2)$
- Find $\frac{dm}{dx}$ for $m = \sec(\sqrt[3]{x})$
- Find $\frac{dm}{dx}$ for $m = \tan(\sqrt{x})$
- Find $\frac{dy}{dx}$ for $y = \sin(e^{2x} + e^{-2x})$
- Find $\frac{dz}{dt}$ for $z = \sin^3(5t^3 + 1)$
- Find $\frac{dz}{dt}$ for $z = \tan^4(3t^4 - 5t)$
- Find $\frac{dy}{dt}$ for $y = \sin^2(3t) \cdot \cos^2(6t)$
- Find $\frac{dy}{dt}$ for $y = \tan^3(t^2) \cdot \sec^3(2t)$
- Find $\frac{dy}{dx}$ for $y = \frac{\sec(x^3)}{\cos(4x^2)}$
- Find $\frac{dt}{du}$ for $t = \sin^{-1}(3u^2)$
- Find $\frac{dt}{du}$ for $t = \sec^{-1}(4u^3 + u)$
- Find $\frac{dy}{dt}$ for $y = \cosh(3t^4 - 1)$
- Find $\frac{dy}{dt}$ for $y = \tanh(t - 4t^2)$
- Find $\frac{dy}{dx}$ for $3x^3y^2 + 5y^3 = 2x^4 - 6y$
- Find $\frac{dy}{dx}$ for $\sin(x + y) = x + y$