

$$y = \log 4x$$

$$y' = \frac{1}{x}$$

$$y = \log (3x - 2)$$

$$y' = \frac{3}{3x - 2}$$

$$y = \log(3 - x)$$

$$y' = \frac{1}{x-3}$$

$$y = \log |x^2 - 4|$$

$$y' = \frac{2x}{x^2 - 4}$$

$$y = \log_5 x$$

$$y' = \frac{1}{x \log 5}$$

$$y = \log_6 2x$$

$$y' = \frac{1}{x \log 6}$$

$$y = \log_3(2x + 1)$$

$$y' = \frac{2}{(2x+1)\log 3}$$

$$y = \log (x + 2)^2$$

$$y' = \frac{2}{x+2}$$

$$y = \log(\sin x)$$

$$y' = \frac{\cos x}{\sin x}$$

$$y = \log(\log x)$$

$$y' = \frac{1}{x \log x}$$

$$y = \log(1 - \cos x)$$

$$y' = \frac{\sin x}{1 - \cos x}$$

$$y = e^{4x}$$

$$y' = 4e^{4x}$$

$$y = x^2 e^x$$

$$y' = x(2 + x)e^x$$

$$y = e^x \cos x$$

$$y' = e^x (\cos x - \sin x)$$

$$y = e^x \tan x$$

$$y' = e^x \left(\tan x + \frac{1}{\cos^2 x} \right)$$

$$y = 4^x$$

$$y' = 4^x \log 4$$

$$y = a^{-3x}$$

$$y' = -3a^{-3x} \log a$$

$$y = 3^{-x^2}$$

$$y' = -2x \cdot 3^{-x^2} \log 3$$