

$$y' = \left(3x + \sqrt[5]{x^4} + \frac{1}{x} \right)' = 3 \cdot (x)' + \left(\sqrt[5]{x^4} \right)' + \left(\frac{1}{x} \right)' = 3 \cdot 1 + \frac{4}{5} \cdot \frac{1}{\sqrt[5]{x}} - 1 \cdot \frac{1}{x^2} = \frac{4}{5\sqrt[5]{x}} - \frac{1}{x^2} + 3$$