

CALCOLA LE SEGUENTI DERIVATE:

$$1) \quad y = 3x^3 - 4x + 5x - 1$$

$$y' = 9x^2 - 4 + 5 = 9x^2 + 1$$

$$2) \quad y = \frac{x^2 + x^3}{\sqrt{x}}$$

$$y = \frac{x^2}{\sqrt{x}} + \frac{x^3}{\sqrt{x}} = \frac{x^2}{x^{\frac{1}{2}}} + \frac{x^3}{x^{\frac{1}{2}}} = x^{2-\frac{1}{2}} + x^{3-\frac{1}{2}} = x^{\frac{3}{2}} + x^{\frac{5}{2}}$$

$$y' = \frac{3}{2} x^{\frac{3}{2}-1} + \frac{5}{2} x^{\frac{5}{2}-1} = \frac{3}{2} x^{\frac{1}{2}} + \frac{5}{2} x^{\frac{3}{2}} = \frac{3}{2} \sqrt{x} + \frac{5}{2} \sqrt{x^3}$$