Derivada - Polinomio

Bit Planet 2

Solución

$$\frac{d}{dx}\left[x^{-2} - \sqrt[3]{x^2} + x + \frac{1}{\sqrt{x}}\right]$$

$$\frac{d}{dx}\left[x^{-2} - x^{\frac{2}{3}} + x + x^{-\frac{1}{2}}\right]$$

$$\frac{d}{dx}\left[x^{-2}\right] - \left[x^{\frac{2}{3}}\right] + \left[x\right] + \left[x^{-\frac{1}{2}}\right]$$

$$-2x^{-3} - \frac{2}{3}x^{\frac{2}{3}-\frac{3}{3}} + 1x^{0} + \left(-\frac{1}{2}x^{-\frac{1}{2}-\frac{2}{2}}\right)$$

$$-2x^{-3} - \frac{2x^{-\frac{1}{3}}}{3} + 1 - \frac{x^{-\frac{3}{2}}}{2}$$

* $\sqrt[3]{x^2} = x^{\frac{2}{3}}$
* $\sqrt{x^2} = x^{\frac{2}{2}}$
* $\frac{1}{\sqrt{x}} = \frac{1}{x^{\frac{1}{2}}}$
* $\frac{1}{x^{\frac{1}{2}}} = x^{-\frac{1}{2}}$
* $\frac{d}{dx}x^n = nx^{n-1}$