

MATEMATIKA I

Kalkulatu ondorengo funtzioen debibadak eta laburtu ahalik eta gehien:

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

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

2.- $y = \frac{7x^3 + 2x}{x^2}$ $y = \frac{7x^3 + 2x}{1 - x^2}$ $y = \frac{x^4 - x + 1}{e^x + 1}$

$$y = \frac{3 \ln x}{2x^3} \quad y = \frac{3 \operatorname{sen} x + x^2}{x^2 - 2} \quad y = \frac{x^5 \cdot 3 \operatorname{sen} x}{x^2 - 2}$$

3.- $y = (3x^2 - 2x)^6$ $y = \sqrt[3]{3x^2 - 2x}$ $y = \ln(3x^2 - 2x)$

$$y = \arccos(3x^2 - 2x) \quad y = \ln \sqrt[5]{3x^2 - 2x} \quad y = e^{3x^2 - 2x}$$

4.- $y = \cos x$ $y = \cos x^4$ $y = \cos^4 x^4$

$$y = \cos(x^4 + x^3) \quad y = \ln(\cos x^4) \quad y = \sqrt{\cos^4 x}$$

$$y = \sqrt[3]{\cos x^4} \quad y = 3^{\cos x} \quad y = 3^{\cos x^3}$$

5.- $y = \ln x$ $y = \ln \frac{1}{x}$ $y = \ln 3x^5$

$$y = \ln(3x^5 + 5x) \quad y = \ln[(3x^5 + 5x) \cdot \operatorname{sen} x] \quad y = \ln(3x^5 + 5x) \cdot \operatorname{sen} x$$

$$y = \log \frac{x^2 + 3}{\operatorname{tg} x} \quad y = \log 10^{\operatorname{sen} x^3} \quad y = \ln \frac{x^2 + 1}{e^x}$$

6.- $y = \operatorname{sen}^4 x \cdot \operatorname{sen} x^4$ $y = \frac{e^{\operatorname{sen} x}}{\operatorname{tag} x}$ $y = \frac{5^x}{\sqrt{x}}$

7.- $y = \operatorname{arctag} x$ $y = \operatorname{arctag} 5x^3$ $y = \operatorname{arctag}(5x^3 + 3^x)$

$$y = \operatorname{arctag} \sqrt{x}$$

$$y = \operatorname{arctag} \sqrt{x^2 + 3}$$