

DERIVADAS

1- $y = -x^2 + 6x$

2- $y = x^3 - 9x + 6$

3- $y = \sqrt[5]{x} - 3\sqrt[3]{x} - 6x$

4- $y = \sqrt[4]{x} - \frac{3}{x^4} + 3\sqrt[3]{x} - \frac{2}{\sqrt{x}}$

5- $y = \frac{2\sqrt{x^3}}{\sqrt[3]{x^2}}$

6- $y = 4x^3 \sqrt[4]{x^5}$

7- $y = \frac{2}{3x^3} + \frac{3}{\sqrt[3]{x^4}}$

8- $y = x^2 \sqrt[3]{x} + \frac{5}{2}x^2 - 6\sqrt{x} + 9$

9- $y = (3x^5 - 4x^2) \cdot (6x - 1)$

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

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

12- $y = \frac{(3x - 1)^2}{\sqrt[3]{x}}$

13- $y = (3x^2 - 1)^2 \cdot \sqrt[3]{3x^2 + 6x}$

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

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

16- $y = e^{\frac{\sqrt{x}}{5x-2}}$

17- $y = (x^3 + 2x)e^{x^3-3x}$

18- $y = \frac{e^{\sqrt{x}}}{x - \sqrt{x}}$

19- $y = (4x^2 - 2) \cdot 3^{\frac{x-2}{x+1}}$

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

21- $y = \log_4(x^2 - 3x)$

1- $y' = -2x + 6$

2- $y' = 3x^2 - 9$

3- $y' = \frac{1}{5\sqrt[5]{x^4}} - \frac{1}{\sqrt[3]{x^2}} - 6$

4- $y' = \frac{1}{4\sqrt[4]{x^3}} + \frac{12}{x^5} + \frac{1}{\sqrt[3]{x^2}} + \frac{1}{\sqrt{x^3}}$

5- $y' = \frac{5}{3} \frac{1}{\sqrt[6]{x}}$

6- $y' = 17x^3 \sqrt[4]{x}$

7- $y' = -\frac{2}{x^4} - 4 \frac{1}{x^2 \sqrt[3]{x}}$

8- $y' = \frac{7}{3} x \sqrt[3]{x} + 5x - \frac{3}{\sqrt{x}}$

9- $y' = 108x^5 - 15x^4 - 72x^2 + 8x$

10- $y' = 13x^3 \sqrt[3]{x} - 75x^4 + \frac{1}{3x^6 \sqrt{x}} + \frac{5}{\sqrt{x}}$

11- $y' = \frac{15x^2 + 18x + 5}{(5x + 3)^2}$

12- $\frac{45x^2 - 12x - 1}{3x \sqrt[3]{x}}$

13- $y' = \frac{2 \cdot (3x^2 - 1) \cdot (21x^3 + 39x^2 - x - 1)}{\sqrt[3]{(3x^2 + 6x)^2}}$

14- $y' = (2x + 3) 2^{x^2+3x} \ln 2$

15- $y' = \frac{x^2 + 2x + 2}{(x + 1)^2} 3^{\frac{x^2-2}{x+1}} \ln 3$

16- $y' = -\frac{5x + 2}{2\sqrt{x}(5x - 2)^2} e^{\frac{\sqrt{x}}{5x-2}}$

17- $y' = (3x^5 + 3x^3 + 3x^2 - 6x + 2) e^{x^3-3x}$

18- $y' = \frac{1}{2} e^{\sqrt{x}} \frac{\left(\sqrt{x} + \frac{1}{\sqrt{x}} - 3\right)}{(x - \sqrt{x})^2}$

19- $y' = 3^{\frac{x-2}{x+1}} \left(8x + \frac{4x^2 - 2}{(x + 1)^2} 3 \ln 3\right)$

20- $y' = \frac{e^{x^2-3x+1}}{2^{\sqrt{x}}} \left(2x - 3 - \frac{\ln 2}{2\sqrt{x}}\right)$

21- $y' = \frac{2x - 3}{x^2 - 3x} \frac{1}{\ln 4} = \frac{2x - 3}{x^2 - 3x} \log_4 e$

$$22- y = \log_2 \frac{3x+1}{x-1}$$

$$23- y = (x^3 + 3x) \cdot \ln(x^2 + 1)$$

$$24- y = \ln^2(x^2 - 2)$$

$$25- y = \ln(\sqrt{x} + 1)^3$$

$$26- y = e^{x+5} \ln\left(\frac{2x+1}{x-2}\right)$$

$$27- y = x^2 \ln x - \frac{1}{2}x^2$$

$$28- y = \text{sen } x^2$$

$$29- y = \text{sen}^2 \sqrt{x}$$

$$30- y = \frac{e^{x^2}}{x^3 + 3}$$

$$31- y = \cos x \cdot \ln x^2$$

$$32- y = \frac{(2x+1) \ln^2 x}{x-1}$$

$$33- y = \cos \frac{3x-2}{2x}$$

$$34- y = \frac{2x^2 - x}{\ln x}$$

$$35- y = (3x^2 + 1)^2 e^{3x^2}$$

$$36- y = x^3 \ln x^2 + \ln^2 x$$

$$37- y = (x^2 - 1) \ln \sqrt{x^2 - 1}$$

$$38- y = \frac{e^{\sqrt{x-1}}}{\sqrt{x-1}}$$

$$39- y = x \cdot \text{sen } x$$

$$40- y = \frac{e^x - e^{-x}}{e^x + e^{-x}}$$

$$22- y' = -\frac{4}{3x^2 - 2x - 1} \frac{1}{\ln 2}$$

$$23- y' = 3(x^2 + 1) \ln(x^2 + 1) + \frac{2x^4 + 6x^2}{x^2 + 1}$$

$$24- y' = \frac{4x}{x^2 - 2} \ln(x^2 - 2)$$

$$25- y' = \frac{3}{2(x + \sqrt{x})}$$

$$26- y' = e^{x+5} \left(\ln \frac{2x+1}{x-2} - \frac{5}{2x^2 - 3x - 2} \right)$$

$$27- y' = 2x \ln x$$

$$28- y' = 2x \cos x^2$$

$$29- y' = \frac{1}{\sqrt{x}} \text{sen} \sqrt{x} \cos \sqrt{x}$$

$$30- y' = e^{x^2} \frac{2x^4 - 3x^2 + 6x}{(x^2 + 3)^2}$$

$$31- y' = -\text{sen } x \cdot \ln x^2 + \frac{2}{x} \cos x$$

$$32- y' = -\frac{\ln x}{(x-1)^2} \left[3 \ln x - \frac{2}{x} (2x^2 - x - 1) \right]$$

$$33- y' = \frac{1}{x^2} \text{sen} \frac{3x-2}{2x}$$

$$34- y' = \frac{(4x-1) \ln x - 2x+1}{\ln^2 x}$$

$$35- y' = 18x \cdot e^{3x^2} (3x^2 + 1)(x^2 + 1)$$

$$36- y' = \left(3x^2 + \frac{1}{x} \right) \ln x^2 + 2x^2$$

$$37- y' = x \left[1 + \ln(x^2 - 1) \right]$$

$$38- y' = \frac{e^{\sqrt{x-1}}}{2\sqrt{x-1}} \frac{\sqrt{x-1} - 1}{x-1}$$

$$39- y' = \text{sen } x + x \cos x$$

$$40- y' = \frac{4}{(e^x + e^{-x})^2}$$