

## DERIVADAS

1.  $f(x) = x^7$
2.  $f(x) = x^{-3}$
3.  $f(x) = x^{2/3}$
4.  $f(x) = \frac{1}{x^4}$
5.  $f(x) = \sqrt[5]{x^3}$
6.  $f(x) = 3x^3$
7.  $f(x) = 5x^{-4}$
8.  $f(x) = \frac{3}{x^2}$
9.  $f(x) = 5\sqrt{x}$
10.  $f(x) = 3x^2 - 5x + 2$
11.  $f(x) = \sqrt{x} - 3x$
12.  $f(x) = x^4 - 2x^2 + \frac{1}{x} - 5$
13.  $f(x) = 3x^2$
14.  $f(x) = \frac{x^2}{5}$
15.  $f(x) = x^2 - x^3$
16.  $f(x) = \frac{5x^2}{7} - x^3$
17.  $f(x) = \sqrt{x}$
18.  $f(x) = \frac{2}{5}\sqrt[3]{x}$
19.  $f(x) = \sqrt{x} - \sqrt[3]{x}$
20.  $f(x) = \frac{1}{3x^2}$
21.  $f(x) = \frac{4}{3\sqrt{x}}$
22.  $f(x) = 3^x 4^x$
23.  $f(x) = 3\operatorname{sen}x$
24.  $f(x) = \operatorname{sen}x \operatorname{cos}x$
25.  $f(x) = \frac{\operatorname{sen}x}{5}$
26.  $f(x) = 3x^2 \operatorname{sen}x$
27.  $f(x) = 2^x \operatorname{cos}x$
28.  $f(x) = e^x \operatorname{sen}x$
29.  $f(x) = \frac{3x^2}{5} - 2 + \operatorname{cos}x$
30.  $f(x) = \sqrt{x^3} - \operatorname{sen}x + 2 \cdot 3^x$
31.  $f(x) = x^3 - 6x^2 + 9x - 5$
32.  $f(x) = \frac{\sqrt{x}}{x^3}$
33.  $f(x) = (x^2 + 1) \cdot e^x$
34.  $f(x) = 3x^4 - 5x^3 - x + 7$
35.  $f(x) = x^3 - 2x^2 + 4x + 1$
36.  $f(x) = x^2 + 4x - 5$
37.  $f(x) = x^4 - 3x^3 + 1$
38.  $f(x) = 2e^x - \operatorname{cos}x + x - \sqrt[3]{x}$
39.  $f(x) = \sqrt[3]{x} - \sqrt{x} + 2x$
40.  $f(x) = \frac{x^5}{5} - \frac{x^4}{2} + x - 1$
41.  $f(x) = \frac{2}{x^2} + \frac{1}{x} - 3x + 6x^2$
42.  $f(x) = \sqrt{x} - \operatorname{cos}x$
43.  $f(x) = x \cdot \lg x$
44.  $f(x) = (2x - 7)(5 - 3x)$
45.  $f(x) = e^x + \operatorname{cos}x$
46.  $f(x) = \frac{2x+3}{x^2-2}$
47.  $f(x) = \operatorname{sen}x \cdot \ln x$
48.  $f(x) = e^x \cdot \ln x$
49.  $f(x) = \frac{\operatorname{cos}x}{\operatorname{sen}x}$
50.  $f(x) = \frac{3x^2-3}{x^3+1}$
51.  $f(x) = \frac{x-5}{2x+3}$
52.  $f(x) = \frac{\operatorname{cos}x+e^x}{e^x}$
53.  $f(x) = \frac{x^2+1}{x^2-1}$
54.  $f(x) = \frac{x}{e^x}$
55.  $f(x) = \frac{x-1}{x^2+1}$
56.  $f(x) = \frac{e^x}{\operatorname{cos}x}$
57.  $f(x) = \frac{x^2+1}{x}$
58.  $f(x) = \frac{x^2+4}{2x}$
59.  $f(x) = x^6 - \operatorname{sen}x$
60.  $f(x) = \operatorname{sen}x + \operatorname{cos}x$
61.  $f(x) = 5^x$
62.  $f(x) = \log_5 x$
63.  $f(x) = 5^x \operatorname{cos}x$
64.  $f(x) = x^3 \operatorname{sen}x$
65.  $f(x) = 7x^4 \operatorname{cos}x$
66.  $f(x) = \frac{3x^2}{\operatorname{sen}x}$
67.  $f(x) = \frac{3e^x}{x^7}$
68.  $f(x) = \frac{3x}{x^2+1}$
69.  $f(x) = \frac{x^2-1}{x^2+1}$
70.  $f(x) = \operatorname{arctg}(x)$
71.  $f(x) = \operatorname{arctg}(3x^2)$

Halla la derivada de las siguientes funciones con la regla de la cadena:

1.  $f(x) = \sqrt{x^2 + 3x - 5}$

2.  $f(x) = \frac{1}{x+2}$

3.  $f(x) = \ln(x^2 - x + 5)$

4.  $f(x) = \ln(x^2 - x + 5)^3$

5.  $f(x) = e^{x^2+x-1}$

6.  $f(x) = e^{3-x^2}$

7.  $f(x) = \text{sen}(3x + 1)$

8.  $f(x) = \sqrt[3]{\cos x}$

9.  $f(x) = \ln\left(\frac{x-3}{x+2}\right)$

10.  $f(x) = e^{-x} \cdot \cos 4x^2$

11.  $f(x) = \text{sen}^3(3x^2 - 7)$

12.  $f(x) = (x^2 + 5)^6$

13.  $f(x) = \text{sen}(x^2 - 1)$

14.  $f(x) = \cos(\ln x)$

15.  $f(x) = \text{tg}(2x - 3x^2)$

16.  $f(x) = e^{3x^2+1}$

17.  $f(x) = 2^{4x+1}$

18.  $f(x) = \cos^2 x$

19.  $f(x) = e^{3x}$

20.  $f(x) = \ln(3x^2 - 6)$

21.  $f(x) = \ln\left(\frac{3x^2-1}{2}\right)$

22.  $f(x) = \text{sen}(3x^2 - 1)^2$

23.  $f(x) = \text{sen}^2(3x^2 - 1)$

24.  $f(x) = 3^{\cos x}$

25.  $f(x) = \ln\left(\frac{x+1}{x-2}\right)$

26.  $f(x) = \left(\frac{x^2-1}{x+2}\right)^2$

27.  $f(x) = \sqrt{x^2 - 4x}$

28.  $f(x) = \frac{x+1}{(x-2)^2}$

29.  $f(x) = \frac{(2x+1)^2}{x-1}$

30.  $f(x) = \frac{(3x-1)^2}{2x+1}$

31.  $f(x) = \frac{e^x}{(x-1)^2}$

32.  $f(x) = \ln \sqrt{\frac{1+\text{sen } x}{1-\text{sen } x}}$