SOLUCIONES

1. $y' = \dfrac{1}{\sqrt{x}\left(1-\sqrt{x}\right)^2}$
2. $y' = \dfrac{-1}{e^x}$
3. $y' = \dfrac{\operatorname{sen} x}{\cos^2 x}$
4. $y' = -5\operatorname{sen} 5x$
5. $y' = -25\cos^4 x \cdot \operatorname{sen} x$
6. $y' = \dfrac{-\cos x}{\operatorname{sen}^2 x}$
7. $y' = 9x^2 \operatorname{sen}^2 x^3 \cos x^3$
8. $y' = 243x^2 \operatorname{sen}^2 (3x)^3 \cos(3x)^3$
9. $y' = \dfrac{2a+3x}{2\sqrt{a+x}}$
10. $y' = \dfrac{3}{x\sqrt{9-x^2}}$
11. $y' = \dfrac{1}{1+\cos x}$
12. $y' = \dfrac{\cos^3 x}{\operatorname{sen} x}$
13. $y' = 6x-5$
14. $y' = \dfrac{-1}{(x+3)^2}$
15. $y' = \dfrac{-3}{2x^2\sqrt{x}}$
16. $y' = \dfrac{1}{2\sqrt{x+1}}$
17. $y' = \dfrac{1}{\sqrt{2x+3}}$
18. $y' = \dfrac{-3}{(x-1)^2}$
19. $y' = \dfrac{3}{2\sqrt{3x}} + \dfrac{2}{3\sqrt[3]{4x^2}}$
20. $y' = \dfrac{5x^2-2}{x^2}$
21. $y' = \dfrac{-x^2-4x-9}{x^4}$
22. $y' = \dfrac{-3x}{\sqrt{1-3x^2}}$
23. $y' = \dfrac{-6}{(3x-1)^3}$
24. $y' = 3\operatorname{sen}^2 x\cos^2 x - \operatorname{sen}^4 x$
25. $y' = \dfrac{-2x}{\left(1+x^2\right)^2}$
26. $y' = \dfrac{-1}{(x-1)\sqrt{x^2-1}}$
27. $y' = 5x^4 \dfrac{\operatorname{sen} x}{\cos x} + x^5 \dfrac{1}{\cos^2 x}$
28. $y' = \cos x + \dfrac{1}{x}$
29. $y' = \dfrac{-5}{3x^2} - 1$
30. $y' = \dfrac{5}{(3x-2)^2}$
31. $y' = \cos x + 3x^2$
32. $y' = \cos^2 x - \operatorname{sen}^2 x$
33. $y' = \dfrac{-x^4-6x^3-24x^2-2x-3}{\left(x^3-1\right)^2}$
34. $y' = 3\cos x - (3x+2)\operatorname{sen} x$
35. $y' = -(6x+2)\operatorname{sen}(3x^2+2x)$
36. $y' = \dfrac{3}{2\sqrt{3x}} + \dfrac{1}{x^2} + \dfrac{1}{x}$
37. $y' = \dfrac{1}{3\sqrt[3]{4x^2}}$
38. $y' = 3\operatorname{sen} x + (3x-2)\cos x$
39. $y' = 2x\ln x + x$
40. $y' = \dfrac{x\cos x - x\operatorname{sen} x - \operatorname{sen} x - \cos x}{x^2}$
41. $y' = \dfrac{-\operatorname{sen} x}{3\sqrt[3]{\cos^2 x}}$
42. $y' = -2\cos ec\, x$
43. $y' = \dfrac{2x^2-2x+2}{(1-x^2)^2}$
44. $y' = \dfrac{e^x(x^3-3x^2-7x+7)}{\left(x^3-7x\right)^2}$
45. $y' = \dfrac{4}{4x^2-1}$
46. $y' = 3\left(sen\dfrac{x}{3} - \cos\dfrac{3}{x}\right)^2 \cdot \left(\dfrac{1}{3}\cos\dfrac{x}{3} - \dfrac{3}{x^2}sen\dfrac{3}{x}\right)$
47. $y' = \dfrac{1}{2\sqrt{x^2-1}}$
48. $y' = \operatorname{sen} 2x$
49. $y' = 9x^2 \ln x$
50. $6x^2+3y+3xy'-2yy'=0$
51. $y' = \dfrac{1}{\operatorname{sen} x}$
52. $y' = \dfrac{1}{3\sqrt[3]{(x-3)^2}}$
53. $y' = \dfrac{1}{x^2(x-1)}$
54. $y' = \dfrac{x\cos x - \operatorname{sen} x}{x^2} - \operatorname{sen} x$
55. $y' = \dfrac{2\cdot e^x + 3\cdot e^{2x}}{2\sqrt{1+e^x}}$
56. $y' = \dfrac{2}{1+\operatorname{sen} 2x}$
57. $y' = e^x \cdot \operatorname{cotag}\, e^x$
58. $y' = \dfrac{2}{(2+x)^2} + \dfrac{1}{(3-x)^2}$
59. $y' = \dfrac{-\operatorname{sen} x}{4\sqrt{1+\sqrt{\cos x}}\sqrt{\cos x}}$
60. $y' = \dfrac{-2}{(2x+3)^2}\cos\dfrac{1}{2x+3}$
61. $y' = \dfrac{-\sqrt{x}}{2x^2}$
62. $y' = \dfrac{3x+2}{2\sqrt{x+2}}$
63. $y' = \cos x \cdot \ln \operatorname{sen} x$
64. $y' = x\cos 2x$
65. $y' = \operatorname{tg}^5 x$
66. $y' = \dfrac{-1}{\operatorname{sen}^3 x}$