DERIVADAS

Derivar y simplificar:

1. $y = \dfrac{1+\sqrt{x}}{1-\sqrt{x}}$
2. $y = \dfrac{e^x+1}{e^x}$
3. $y = \sec x$
4. $y = \cos 5x$
5. $y = 5\cos^5 x$
6. $y = \operatorname{cosec} x$
7. $y = sen^3 x^3$
8. $y = sen^3(3x)^3$
9. $y = x\sqrt{a+x}$
10. $y = \ln \dfrac{x}{3+\sqrt{9-x^2}}$
11. $y = \dfrac{senx}{1+\cos x}$
12. $y = \ln(senx) + \dfrac{1}{2}\cos^2 x$
13. $y = 3x^2 - 5x + 1$
14. $y = \dfrac{1}{x+3}$
15. $y = \dfrac{1}{x\sqrt{x}}$
16. $y = \sqrt{x+1}$
17. $y = \sqrt{2x+3}$
18. $y = \dfrac{x+2}{x-1}$
19. $y = \sqrt{3x} + \sqrt[3]{2x}$
20. $y = \dfrac{5x^2+3x+2}{x}$
21. $y = \dfrac{1}{x} + \dfrac{2}{x^2} + \dfrac{3}{x^3}$
22. $y = \sqrt{1-3x^2}$
23. $y = \frac{1}{(3x-1)^2}$
24. $y = \operatorname{sen}^3 x \cdot \cos x$
25. $y = \dfrac{1}{(3x-1)^2}$
26. $y = \sqrt{\dfrac{x+1}{x-1}}$
27. $y = x^5 \cdot \dfrac{senx}{\cos x}$
28. $y = senx + \ln x + 2$
29. $y = \dfrac{2x+5-3x^2}{3x}$
30. $y = \dfrac{2x-3}{3x-2}$
31. $y = senx + x^3$
32. $y = senx \cdot \cos x$
33. $y = \dfrac{x^2+3x+8}{x^3-1}$
34. $y = (\cos x)(3x+2)$
35. $y = \cos(x \cdot (3x+2))$
36. $y = \sqrt{3x} - \dfrac{1}{x} + \ln x$
37. $y = \dfrac{x}{\sqrt[3]{4x^2}}$
38. $y = (3x-2)senx$
39. $y = x^2 \ln x$
40. $y = \dfrac{senx + \cos x}{x}$
41. $y = \sqrt[3]{\cos x}$
42. $y = \ln \dfrac{1+\cos x}{1-\cos x}$
43. $y = \dfrac{2x-1}{1-x^2}$
44. $y = \dfrac{e^x}{x^3-7x}$
45. $y = \ln \dfrac{2x-1}{2x+1}$
46. $y = \left(sen\dfrac{x}{3} - \cos\dfrac{3}{x}\right)^3$
47. $y = \ln\left(\sqrt{x+1} + \sqrt{x-1}\right)$
48. $y = \cos^2 x - \cos 2x$
49. $y = 3x^3 \ln x - x^3$
50. $y = 2x^3 + 3xy - y^2 - 6 = 0$
51. y=$\ln tg\dfrac{x}{2}$
52. $y = \sqrt[3]{x-3}$
53. $y = \ln\left(1 - \dfrac{1}{x}\right) + \dfrac{1}{x}$
54. $y = \dfrac{senx}{x} + \cos x$
55. $y = e^x\sqrt{1+e^x}$
56. $y = \dfrac{senx - \cos x}{senx + \cos x}$
57. $y = \ln sene^x$
58. $y = \dfrac{x}{2+x} + \dfrac{1}{3-x}$
59. $y = \sqrt{1+\sqrt{\cos x}}$
60. $y = sen\dfrac{1}{2x+3}$
61. $y = \sqrt{\dfrac{1-x}{x-x^2}}$
62. $y = \dfrac{x^2-4}{\sqrt{x+2}}$
63. $y = senx \cdot \ln senx - senx$
64. $y = \dfrac{xsen2x}{2} + \dfrac{1}{2}\cos^2 x$
65. $y = \dfrac{1}{4}tg^4x - \dfrac{1}{2}tg^2x - \ln\cos x$
66. $y = \dfrac{\cos x}{2sen^2x} - \dfrac{1}{2}\ln\left(tg\dfrac{x}{2}\right)$
67. $y = (6x^2+3x)^2(x^2-1)^3$
68. $y = (3x+2)(3-2x)(x+5)$
69. $y = x^{senx}$
70. $y = (\cos x)^{\text{sen}x}$
71. $y^2 + x^2 = 4$
72. $2x^3 + 3xy - y^2 - 6 = 0$
73. $y = \left(x^4 - 2x\right)^{3x-1}$
74. $y = \left(x^4 - 2x\right)^{3x-1}$