

SOLUCIONES

1. $y' = -12x^3 + 7$

2. $y' = -10x^4 - 15x^2 + 4x$

3. $y' = 15(3x+1)^4$

4. $y' = \frac{4}{(x+3)^2}$

5. $y' = \frac{-x^4 + 2x}{(1+x^3)^2}$

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

7. $y' = \frac{-2}{(x+1)^2}$

8. $y' = \frac{2}{(x+2)^3}$

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

10. $y' = \frac{128-48x}{x^3(x-4)^2}$

11. $y' = \frac{2}{3\sqrt[3]{x}}$

12. $y' = -\frac{2}{x^3} - \frac{3}{x^4} + \frac{4}{x^5}$

13. $y' = \frac{3\ln x - 3}{(\ln x)^2}$

14. $y' = \frac{x}{\sqrt{x^2+3}}$

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

16. $y' = \sqrt{x^2-1} + \frac{x^2}{2\sqrt{x^2-1}}$

17. $y' = \frac{6}{3x+5}$

18. $y' = \frac{1}{x+3}$

19. $y' = \frac{2x-3}{x^2-3x}$

20. $y' = -\frac{1}{x}$

21. $y' = -\frac{1}{x-1}$

22. $y' = 12 \cot g 3x$

23. $y' = 15x^2$

24. $y' = (2x+2) \cdot e^{x^2+2x-1}$

25. $y' = 1$

26. $y' = -\cos x \cdot e^{-\operatorname{sen} x}$

27. $y' = -\frac{1}{x^2} \cdot e^{\frac{1}{x}}$

28. $y' = x \cdot (2\operatorname{sen} x + x \cdot \cos x)$

29. $y' = x^2 \cdot (3\cos x - x \cdot \operatorname{sen} x)$

30. $y' = \cos^2 x - \operatorname{sen}^2 x = \cos 2x$

31. $y' = -2(x+1) \cdot \operatorname{sen}(x+1)^2$

32. $y' = (8x-4) \cdot \sec^2(2x-1)^2$

33. $y' = 8x \cdot \operatorname{tg}^3 x^2 \cdot \sec^2 x^2$

34. $y' = \frac{3}{2} e^{\frac{2-3x}{10}}$

35. $y' = \frac{1}{12 \sqrt[24]{(2x+1)^{23}}}$

36. $y' = [\operatorname{tg}(1-x)] \cdot \log_2 e$

37. $y' = 300(5x+1)^3 \operatorname{sen}^2(5x+1)^4 \cos(5x+1)^4$

38. $y' = -6 \operatorname{sen} 3x \cdot \cos(\cos 3x)$

39. $y' = \frac{3}{8\sqrt{3x}} \sec^2 \sqrt{3x}$

40. $y' = -4x \cdot e^{x^2} \cdot \operatorname{cosec}^2 e^{x^2}$

41. $y' = (16x+56) \cdot (x^2+7x)^7$

42. $y' = \frac{3x^2-4}{3\sqrt[3]{x^6-8x^4+16x^2}}$

43. $y' = \frac{4x+14}{3\sqrt[3]{x^2+7x}}$

44. $y' = (60x-50) \cdot (3x^2-5x)^9$

45. $y' = -\frac{1}{x^2}$

46. $y' = \frac{2}{3\sqrt[3]{1+x}}$

47. $y = 3\sqrt{5x}$

48. $y' = \frac{2+x}{(2+2x)\sqrt{1+x}}$

49. $y' = \frac{4x^2-2}{\sqrt{1-x^2}}$