

DERIVADAS**1º Bachillerato.**

Halla la derivada de las siguientes funciones:

1. $y = -3x^4 + 7x - 5$

2. $y = (2x^2 + 5)(-x^3 + 1)$

3. $y = (3x + 1)^5$

4. $y = \frac{x-1}{x+3}$

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

6. $y = \frac{x+1}{x^2+3}$

7. $y = \frac{2}{x+1}$

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

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

10. $y = \frac{16}{x^2(x-4)}$

11. $y = x^{\frac{2}{3}} \cdot x^{\frac{1}{3}} \cdot x^{\frac{2}{6}}$

12. $y = x^{-2} + x^{-3} - x^{-4}$

13. $y = \frac{3x}{\ln x}$

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

15. $y = \frac{1}{\sqrt{x+1}}$

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

17. $y = 2 \ln(3x+5)$

18. $y = \ln(x+3)$

19. $y = \ln(x^2-3x)$

20. $y = \ln\left(\frac{1}{x}\right)$

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

22. $y = 6 \ln(\sqrt[3]{\sin^2 3x})$

23. $y = 5 \ln e^{x^3}$

24. $y = e^{x^2+2x-1}$

25. $y = e^{\ln x}$

26. $y = e^{-\sin x}$

27. $y = e^{1/x}$

28. $y = x^2 \cdot \sin x$

29. $y = x^3 \cdot \cos x$

30. $y = \sin x \cdot \cos x$

31. $y = \cos(x+1)^2$

32. $y = \operatorname{tg}(2x-1)^2$

33. $y = \operatorname{tg}^4 x^2$

34. $y = -5e^{\frac{2-3x}{10}}$

35. $y = \sqrt[3]{\sqrt[4]{2x+1}}$

36. $y = \log_2(\cos(1-x))$

37. $y = 5 \sin^3(5x+1)^4$

38. $y = 2 \sin(\cos 3x)$

39. $y = \frac{\operatorname{tg}\sqrt{3x}}{4}$

40. $y = 2 \operatorname{cotg} e^{x^2}$

41. $y = (x^2+7x)^8$

42. $y = \sqrt[3]{x^3-4x}$

43. $y = \sqrt[3]{(x^2+7x)^2}$

44. $y = (3x^2-5x)^{10}$

45. $y = \left(\frac{1}{x^2} + \frac{1}{x}\right) \cdot x$

46. $y = \sqrt[3]{(1+x)^2}$

47. $y = 2x \cdot \sqrt{5x}$

48. $y = \frac{x}{\sqrt{1+x}}$

49. $y = (x - \sqrt{1-x^2})^2$

50. $y = \frac{a + \sqrt{x}}{a - \sqrt{x}}$

51. $y = \sqrt{1 + \sqrt{x}}$

52. $y = \left(\frac{x^2+2}{4x+2}\right)^2$