dsfareaUNIVERSIDAD NACIONAL AUTÓNOMA DE MÉXICO

COLEGIO DE CIENCIAS Y HUMANIDADES

PLANTEL VALLEJO

ÁREA DE MATEMÁTICAS

CÁLCULO DIFERENCIAL E INTEGRAL I

DERIVADAS

Obtener la derivada de las siguientes funciones:

1.- $f(x)=\dfrac{4x^3-5x^2+4x-7}{x^2}$

2. $f(x)=\dfrac{x^2\sqrt[3]{x}}{x^{-2}}$

3. $f(x)=x(x-4)(x+2)$

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

5. $f(x)=\sqrt{4x^2-3x+2}$

6. $f(x)=(x-3)(x+3)^3$

7. $f(x)=\dfrac{3x^2-10}{3x+10}$

8. $f(x)=\sqrt[4]{(2x^2-3x+1)^5}$

9. $f(x)=\dfrac{7x^3-4x^2+2x-6}{x+2}$

10. $f(x)=\dfrac{x^2-8x+1}{\sqrt{x^3}}$

11. $f(x)=\dfrac{10}{3x^2}-\dfrac{4}{2x^3}+1$

12. $f(x)=\dfrac{8}{\sqrt{x^4-x^2+4}}$

13. $f(x)=\dfrac{x}{x+4}$

14. $f(x)=\dfrac{2x^3+3}{3x^2+3}$

15. $f(x)=10\sqrt{x^2\sqrt{16x^4}}$

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

17. $f(x)=\dfrac{2+\pi\sqrt{x}}{5+\pi x}$

18. $f(x)=(2x^2+10x-3)(3x^3-6x+1)$

19. $f(x)=\dfrac{x+3}{x}-\dfrac{x}{x+3}$

20. $f(x)=x\sqrt[3]{x}-\sqrt{4x}$

21. $f(x)=\dfrac{3}{2+\dfrac{2}{x}}$

22. $f(x)=\dfrac{-3}{(x+4)^4}$

23. $f(x)=\dfrac{2x}{(x-5)^3}$

24. $f(x)=\dfrac{(3x-1)^3}{3x}$

25. $f(x)=\dfrac{3}{2}\sqrt{4+x^2}(4+x^2)$

26. $f(x)=\dfrac{x+3}{2x^2-6x+1}$

27. $f(x)=(\dfrac{x^3}{3}-\dfrac{3}{5})\sqrt{2x+7}$

28. $f(x)=10x^3-\dfrac{5}{2}x^2+x+\dfrac{2}{x}$

29. $f(x)=x\sqrt{x^2-3x+4}$

30. $f(x)=\sqrt{5x^2-4x+3}$

31. $f(x)=(1+\sqrt{x})(1-\sqrt[3]{x})$

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

33. $f(x)=(2x-6)(3x+1)x$

34. $f(x)=\dfrac{4x^3-6x^2+2}{x^2}$

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

36. $f(x)=\dfrac{6x-4}{x^2+x-3}$

37. $f(x)=3x^{\pi}+\pi x^3$

38. $f(x)=\dfrac{25}{(x-5)^5}$

39. $f(x)=2+\dfrac{1}{3\sqrt{x}}$

40. $f(x)=\sqrt{\dfrac{x-2}{x+2}}$

41 $f(x)=\dfrac{x^3}{(x^5+3)^3}$

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

43. $f(x)=\dfrac{x^{-2}+x^{-3}}{x^{-4}}$

44. $f(x)=\dfrac{(x-3)(x+1)}{(x+3)(x-1)}$

45. $f(x)=\sqrt{\dfrac{1}{x}+1}$

46. $f(x)=(x-1)^4(x^2+2)^3$

47. $f(x)=\dfrac{x}{\sqrt{x^2-4x+1}}$

48. $f(x)=x^3+\dfrac{1}{x^3}$

49. $f(x)=\left(\dfrac{x+2}{x-2}\right)(x^2-x+3)$

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