DIA | MES | AÑO

1: $y = 2x^3 - 6x^2 + 7x + 71$

$y' = 6x^3 - 12x + 7$

2: $y = 11/1 \cdot x^3 + \frac{7}{3} x^2$

$y' = 33/12 x^2 + 19/6 x$

3: $y = 11 - 2x^2 - 6x^3$

$y' = -4x - 18x^2$

4: $y = x/(x^2 - 8x)$ $\quad u = 1 \quad v = (2x - 8)$

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

$y' = \frac{(x^2 - 8x) - (2x^2 - 8x)}{(x^2 - 8x)^2}$ $\quad \boxed{y' = \frac{x^2}{(x^2 - 8x)^2}}$

5: $y = 5/(3x - 1)$ $\quad u = 0 \quad v = 3$

$y' = \frac{(3x - 1)(0) - (5)(3)}{(3x - 1)^2}$ $\quad y' = \frac{-15}{3x^2 + 16}$

6: $y = (3x + 2)/(2x - 1)$ $\quad u = 3 \quad v = 2$

$y' = \frac{(2x - 1)(3) - (3x + 2)(2)}{(2x - 1)^2}$ $\quad y' = \frac{(6x - 3) - (6x + 4)}{(2x - 1)^2}$

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

7: $(3x^2 + 1)/(2x)$ $\quad u = 6x \quad v = 2$

$y' = \frac{(2x)(6x) - (3x^2 + 1)(2)}{(2x)^2}$ $\quad y' = \frac{(12x^2) - (6x^2 + 2)}{2x^2}$

8: $y = 5/(4 + x^2)$ $\quad u = 0 \quad v = 2x$

$y' = \frac{(4 + x^2)(0) - (5)(2x)}{(4 + x^2)^2}$ $\quad y' = \frac{-10x}{(4 + x^2)^2}$

9° $y=(4+2x)^2$

$y' = 2(4+2x)^{2-1} \cdot \frac{d(4+2x)}{dx}$ $y' = 2(4+2x) \cdot (2)$

$y = 4(4+2x)$

10° $y = \frac{3}{5}x^3 - \frac{1}{3}x - \frac{1}{8}$

$y' = \frac{9}{5}x^2 - \frac{3}{4}$

11° $y = \frac{(2x^2)}{(\tan x^2)}$ u v $du = 4x$ $dv = 2\sec^2 x^2$

$y' = \frac{(\tan x^2)(4x) - (2x^2)(2\sec^2 x^2)}{(\tan x^2)^2}$

$y' = \frac{4x(\tan x^2 - x^2 \sec^2 x^2)}{\tan x^2 \, 2}$

12° $y = 3x^2 \cos 3x^2$ u v $du = 6x$ $dv = 6x \operatorname{sen} 3x^2$

$y' = \frac{(\cos 3x^2)(6x) - (3x^2)(6x \operatorname{sen} 3x^2)}{(\cos 3x^2)^2}$

$y' = 6x(\cos 3x^2 - 3x^2 \operatorname{sen} 3x^2)$

13° $y = \operatorname{sen} x^2 \cos x^2$ $du = 2x \cos x^2$ $dv = 2x \operatorname{sen} x^2$

$y' = \frac{(2x\cos x^2)(2x - \operatorname{sen} x^2)}{(\cos x^2)^2}$

14° $y = \cot 3x^3$

$y' = 9x^2 \csc 3x^2$

15° $y = \sqrt{2x^3 \cos x^2}$

$y' = \frac{1}{2}(2x^3 \cos x^2)^{\frac{1}{2}-1} \, d(2x^3 \cos x^2)$

$y' = \frac{6x^2 - \operatorname{sen} x}{\sqrt{2x^3 \cos x^2}}$

18. $y = \sqrt{2x^2 \sin 2x}$

$y' = \frac{1}{2}(2x^2 \sin 2x)^{\frac{1}{2}-1} \cdot d(2x^2 \sin 2x)$

$y' = \frac{2x \sin 2x + 2x^2 \cos 2x}{\sqrt{2x^2 \sin 2x}}$

17. $y = 12x^3 \cos x^2$ $u = 12x^3$ $v = \cos x^2$ $du = 36x^2$ $dv = -2x \sin x^2$

$y' = (\cos x^2)(36x^2) + (12x^3)(-2x \sin x^2)$

$y' = 6x^2(6 \cos x^2 - 4x^2 \sin x^2)$

19. $y = \sec 2x^{11}$

$y' = 16 \sec 2x^{11} \tan 2x^2$

19. $y = y = (\cos 2x^7)^2$

$y' = 2(\cos 2x^7)^{2-1} \cdot d(\cos 2x^7)$

y

20. $y = (\sin x^2)^2$

$y' = 2(\sin x^2)^{2-1} \quad d(\sin x^2)$

$y' = \frac{-4 \cos x^2}{(\sin x^2)^3}$