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Cuatrimestre 3.

Marlon Uriel Ramos Dominguez

$$\int x^n dx =$$

$$\frac{x^{n+1}}{n+1} = \frac{x^2}{2} + c$$

$$\int 3x^2 dx = \frac{3x^{2+1}}{2+1}$$

$$\frac{3x^3}{3} = x^3 + c$$

$$\int e^x dx$$

$$= e^x + c$$

$$\frac{1}{2} \int e^{x^{2+1}}$$

$$e^{x^2} dx$$

$$f = e^{x^2} \quad f' = 2x$$

$$\frac{1}{2} e^{x^{2+1}} + c$$

Formula

$$\int x^a = \frac{x^{a+1}}{a+1}$$

derivada

$$\frac{d(x^3 + 5)}{dx} = 3x^2$$

Integral

$$\int 3x^2 dx = 3x^{\frac{2+1}{2+1}}$$

$$\frac{3x^3}{3} = x^3 + c$$

$$\int 10x^{5+2} x^4 dx$$

$$f = x^5 + 2 \quad f' = 5x^4$$

$$\frac{2/5 \cdot 10x^{5+2} + c}{1 \ln 10}$$

$$\int x^4 dx$$

$$f = 2x^{5+1} \quad f' = 10x^4$$

$$\frac{1}{10} \ln |e^{x^{5+1}}| + c$$

$$\frac{d(5x^4 + 2x^3 + 3)}{dx}$$

$$\frac{d(5x^4)}{dx} + \frac{d(2x^3)}{dx} + \frac{d(3)}{dx}$$

$$20x^3 + 6x^2$$

$$\bullet \frac{d(4x^2 + 3)^3}{dx}$$

$$3(4x^2 + 3)^2 \cdot d(4x^2 + 3)$$

$$3(4x^2 + 3)^2 (8x + 3)$$

$$(24 + 4) (4x^2 + 3)^2$$

$$\frac{d(12x^8 + 41x + 2)^5}{dx}$$

$$\frac{d(12x^8)}{dx} + \frac{d(41x)}{dx} + \frac{d(2)}{dx}$$

$$96x^7 + 41$$

$$\frac{d(10x^7 + 3x^2 + 2x + 5)^6}{dx}$$

$$\frac{d(10x^7)}{dx} + \frac{d(3x^2)}{dx} + \frac{d(2x)}{dx} + \frac{d(5)}{dx}$$

$$70x^6 + 6 + 2$$

$$\bullet \frac{d(7x^2 + 4x + 2)^7}{dx}$$

$$\frac{d(7x^2)}{dx} + \frac{d(4x)}{dx} + \frac{d(2)}{dx}$$

$$14x + 4$$

Marling Uriel

$$\int \frac{3}{4} 7x^4 + \frac{3}{2} x dx$$

$$P = x^4 + 3 \quad P' = 4x^3$$

$$\frac{3}{4} e^{x^4 + 3} + C$$

$$\int \frac{2x^2}{3x^3 + 2} dx$$

$$P = 3x^3 + 2 \quad P' = 9x^2$$

$$\frac{1}{4} \ln |3x^3 + 2| + C$$

$$\int 4x dx$$

$$2x^2 + C$$

$$\int 2x^{2+3} dx$$

$$P = 2x^2 + 3 \quad P' = 4x$$

$$e = 2x^{2+3} + C$$

$$\int e^x dx$$

$$e^x + C$$

$$\int 2x^{2+3} dx$$

$$P = 2x^{2+3} \quad P' = 2x^2$$

$$\frac{1}{3} \frac{4x^{2+3}}{\ln 4} + C$$