

NOMNRE DEL ALUMNO: JOSE CARLOS TOLEDO PEREZ

NOMBRE DEL PROFESOR: JORGE ENRIQUE ALBORES AGUILAR

MARERIA: ECUACIONES DIFERENCIALES

ACTIVIDAD: 1

LICENCIATURA: INGENIERIA EN SISTEMAS COMPUTACIONALES

CUATRIMESTRE: 3

osé Carlos Toledo Pérez

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

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

$$\int e^x dx = e^x + C$$

$$\int \frac{1}{2} e^{x+1} dx$$
$$F = x^{2+1} \quad F' = 2x$$
$$\frac{1}{2} e^{x+1} + C$$

Formula

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

derivada

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

integral

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

$$\int 3x^2 = x^3 + C$$

$$\int 10^{x^5+2+4} dx$$
$$F = x^5+2 \quad F' = 5x^4$$

$$\frac{10^{x^5+2}}{\ln 10} + C$$

$$\int x^4 dx$$
$$\frac{1}{2x^{5+1}} dx$$
$$F = 2x^{5+1} \quad F' = 10x^4$$

$$\frac{1}{10} \ln |2x^{5+1}| + C$$

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

$$\frac{d(5x^4)}{dx} x \quad \frac{d(2x^3)}{dx} + \frac{d(3)}{dx}$$
$$20x^3 + 6x^2$$

$$\frac{d(4x^2+9)^3}{dx}$$

$$3(4x^2+9)^2 \frac{d(4x^2+9)}{dx}$$

$$3(4x^2+9)^2 (8x+9)$$
$$(24x+9) (4x^2+9)^2$$

$$\frac{d(12x^8+4x^2)}{dx}$$

$$\frac{d(12x^8)}{dx} + \frac{d(4x^2)}{dx} + \frac{d(2)}{dx}$$
$$96x^7+8$$

$$\frac{d(7x^2+4x+2)^2}{dx}$$
$$\frac{d(7x^2)}{dx} + \frac{d(4x)}{dx} + \frac{d(2)}{dx}$$
$$14x+4$$

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

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

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

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

$$F = 3+3+2 \quad F' = 4x$$

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

$$\bullet \int (2x^2+3) x dx$$

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

$$E = 2x^2+3 + C$$

$$\bullet \int e^x dx$$

$$= e^x + C$$

$$\bullet \int (2x^2+2+3) 3x dx$$

$$F = 2x^2+3 \quad f' = 3x$$

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