

$$\int (2x) \sqrt{x} dx \quad (1+x) \sqrt{x} \quad \frac{2}{2} + \frac{1}{2} = \frac{3}{2}$$

$$\int x^m dx + \int x^{3/2} dx = C \quad \frac{x^{5/2}}{5/2} + \frac{x^{5/2}}{5/2} + C$$

$$\int (2x^2 - 5x + 3) dx$$

$$\int 2x^2 dx - \int 5x dx + \int 3 dx$$

$$\frac{2x^3}{3} - \frac{5x^2}{2} + 3x + C$$

$$\int u^m du = \frac{u^{m+1}}{m+1} + C$$

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

$$9x^2 + 12x + 16$$

$$12x \cdot 16$$

$$9x^2 + 24x + 16$$

$$\frac{9x^3}{3} + \frac{24x^2}{2} + 16x + C$$

$u = x$   
 $m = 1$   
 $m+1 = 2$

$u = x$   
 $m = 2$   
 $m+1 = 3$

$$3 \times 3 = 9x^2$$

$$3 \times 4 = 12x$$

$$4 \times 3 = 12x$$

$$4 \times 4 = 16$$

$$\frac{9x^3}{3} + \frac{24x^2}{2} + 16x + C$$

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

$$\frac{x^2}{2} + 5x + \frac{4}{x} + C$$

$$\int \frac{x^3 + 5x^2 - 4}{x^2} dx$$

$$\int \frac{dx}{x^2-49} = \frac{u=y}{u=49} \quad \begin{matrix} u=y \\ u=49 \\ u^2=49 \\ u= \end{matrix}$$

$$\int (x+3)^2 dx = (x+3) \cdot (x+3) = x^2+3x+3x+9 = x^2+6x+9$$

$$\int \cos \frac{2x}{3} dx =$$

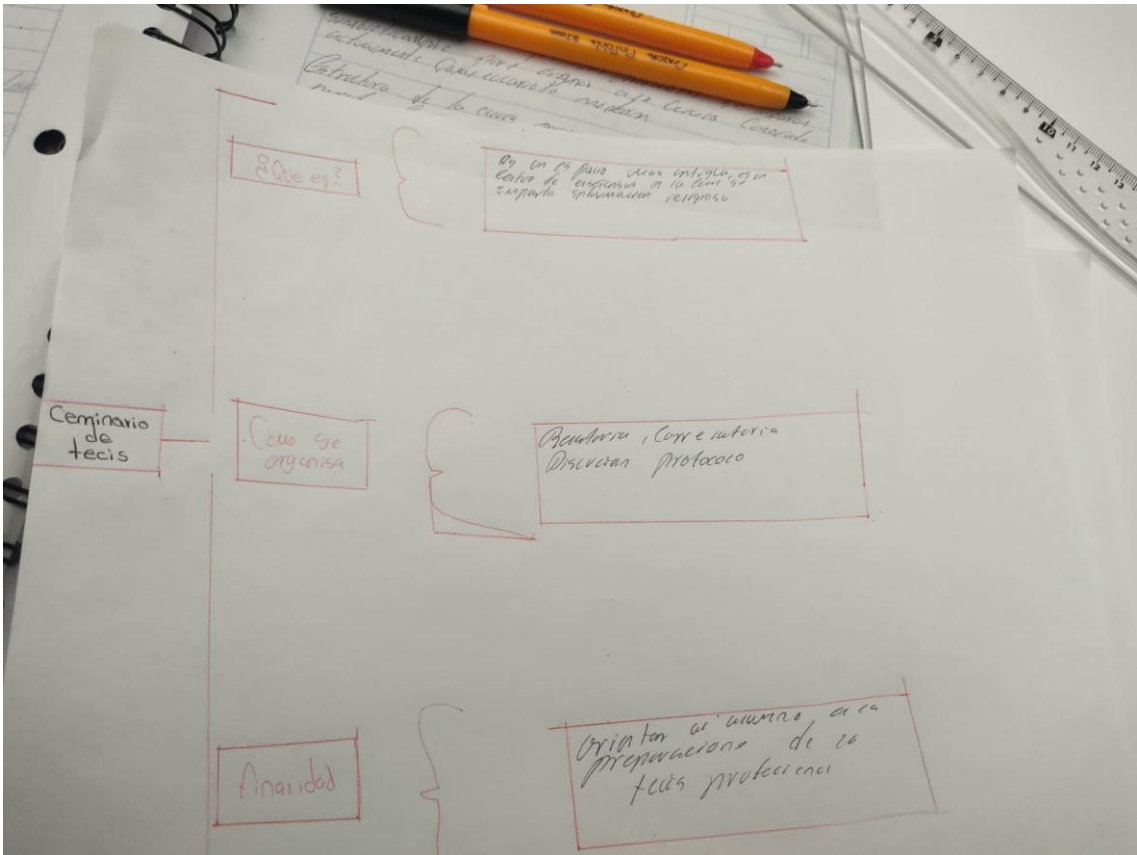
$$\int \frac{dx}{x^4+81} = \frac{u^2=x^4}{u=x^2} \quad \begin{matrix} u^2=x^4 \\ u=x^2 \\ u^2=81 \\ u=9 \end{matrix} \quad \frac{1}{18} \ln \left| \frac{x^2+9}{9+x^2} \right| + C$$

$$\int \frac{1}{(x-2)^2} dx = \int \frac{dx}{x^2-4x+4} = \int \frac{x^{-2}}{x^2-4x+4} = \frac{1}{4} \int \frac{dx}{x} + \frac{1}{4}$$

$$\int dx = x^{-1} - \frac{1}{4} \ln x + \frac{1}{4} x + C$$

$$= \frac{1}{x} - \frac{1}{4} \ln x + \frac{x}{4} + C$$

$$= \frac{1}{x} - \frac{1}{4}$$





$$\int \frac{(1 + \sqrt{|x|})^2}{\sqrt{|x|}} dx$$

$$\int \frac{(x+1)(x-2)}{\sqrt{|x|}} dx$$

$$\int \frac{dx}{x-1} \ln |x-1| + C$$

$$\int a^{2x} dx = \frac{a^{2x}}{\ln a} + C \quad a > 1 \neq 1$$

$$= \int (1 + 2\sqrt{|x|} + x)$$

$$= \int \frac{dx}{\sqrt{|x|}} + 2 \int \frac{\sqrt{|x|} dx}{\sqrt{|x|}} + \int \frac{x}{\sqrt{|x|}}$$

$$= \int x^{-1/2} dx + 2 \int dx + \int x^{1/2} dx$$

$$= \frac{x^{-1/2+1}}{-1/2+1} + 2x + \frac{x^{1/2+1}}{1/2+1} + C$$

$$= 2\sqrt{|x|} + 2x + \frac{x^{3/2}}{3/2} + C$$

$$= 2\sqrt{|x|} + 2x + \frac{2}{3} \sqrt{|x|^3} + C$$

Norm

Es una constante cualquiera y que se determine constante de integración formulas integrales de formacion

1)  $\int \cos x dx = \sin x + C$

2)  $\int \sin x dx = -\cos x + C$

3)  $\int \sec x dx = \ln|\sec x + \tan x| + C$

4)  $\int \csc x dx = \ln|\csc x - \cot x| + C$

5)  $\int \frac{1}{x} dx = \ln|x| + C$

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

7)  $\int \sec^2 x dx = \tan x + C$

8)  $\int \csc^2 x dx = -\cot x + C$

9)  $\int \frac{1}{\cos^2 x} dx = \tan x + C$

10)  $\int \frac{1}{\sin^2 x} dx = -\cot x + C$

11)  $\int \frac{1}{\cos x} dx = \ln|\sec x + \tan x| + C$

12)  $\int \frac{1}{\sin x} dx = \ln|\csc x - \cot x| + C$

13)  $\int \frac{1}{\cos^2 x} dx = \tan x + C$

14)  $\int \frac{1}{\sin^2 x} dx = -\cot x + C$

15)  $\int \sec x \csc x dx = \sec x \csc x + C$

16)  $\int \frac{1}{\cos x} dx = \ln|\sec x + \tan x| + C$

17)  $\int \frac{1}{\sin x} dx = \ln|\csc x - \cot x| + C$

18)  $\int \frac{1}{\cos^2 x} dx = \tan x + C$

19)  $\int \frac{1}{\sin^2 x} dx = -\cot x + C$

20)  $\int \frac{1}{\cos x} dx = \ln|\sec x + \tan x| + C$

21)  $\int \frac{1}{\sin x} dx = \ln|\csc x - \cot x| + C$

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23)  $\int \frac{1}{\sin^2 x} dx = -\cot x + C$

24)  $\int \frac{1}{\cos x} dx = \ln|\sec x + \tan x| + C$

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32)  $\int \frac{1}{\cos x} dx = \ln|\sec x + \tan x| + C$

33)  $\int \frac{1}{\sin x} dx = \ln|\csc x - \cot x| + C$

34)  $\int \frac{1}{\cos^2 x} dx = \tan x + C$

35)  $\int \frac{1}{\sin^2 x} dx = -\cot x + C$

36)  $\int \frac{1}{\cos x} dx = \ln|\sec x + \tan x| + C$