

$$\int (du + dv - dw) = \int du + \int dv - \int dw$$

$$\int a dv = a \int dv \quad \int x^n dx = \frac{x^{n+1}}{n+1} + C, n \neq -1$$

$$\int dx = x + C \quad \int v^n dv = \frac{v^{n+1}}{n+1} + C, n \neq -1$$

$$\int \frac{dv}{v} = \ln|v| + C \quad \int a^v = \frac{a^v}{\ln a} + C$$

$$\int e^v dv = e^v + C \quad \int \operatorname{sen} v dv = -\cos v + C$$

$$\int \cos v dv = \operatorname{sen} v + C \quad \int \sec^2 v dv = \tan v + C$$

www.promasmate.weebly.com

$$\int \csc^2 v dv = -\cot v + C \quad \int \sec v \tan v dv = \sec v + C$$

$$\int \csc v \cot v dv = -\csc v + C \quad \int \cot v dv = \ln|\operatorname{sen} v| + C$$

$$\int \tan v dv = -\ln|\cos v| + C = \ln|\sec v| + C$$

$$\int \sec v dv = \ln|\sec v + \tan v| + C$$

$$\int \csc v dv = \ln|\csc v - \cot v| + C$$

$$\int e^v dv = e^v + C \quad \int a^v dv = \frac{a^v}{\ln a} + C$$

www.promasmate.weebly.com

$$\int \frac{dv}{v^2 + a^2} = \frac{1}{a} \arctan\left(\frac{v}{a}\right) + C \quad \int \frac{dv}{v^2 - a^2} = \frac{1}{2a} \ln\left|\frac{v-a}{v+a}\right| + C$$

$$\int \frac{dv}{a^2 - v^2} = \frac{1}{2a} \ln\left|\frac{a+v}{a-v}\right| + C \quad \int \frac{dv}{\sqrt{a^2 - v^2}} = \arcsin\frac{v}{a} + C$$

$$\int \frac{dv}{\sqrt{v^2 \pm a^2}} = \ln\left(v + \sqrt{v^2 \pm a^2}\right) + C$$

$$\int \frac{dv}{v\sqrt{v^2 - a^2}} = \frac{1}{a} \operatorname{arcsec}\frac{v}{a} + C$$

$$\int \sqrt{a^2 - v^2} dv = \frac{v}{2} \sqrt{a^2 - v^2} + \frac{a^2}{2} \arcsin\frac{v}{a}$$

$$\int \sqrt{v^2 \pm a^2} dv = \frac{v}{2} \sqrt{v^2 \pm a^2} \pm \frac{a^2}{2} \ln\left(v + \sqrt{v^2 \pm a^2}\right) + C$$

www.promasmate.weebly.com

Integrales de la forma $\int \operatorname{sen}^m v dv$, $\int \cos^n v dv$ con m y n impar
 $\operatorname{sen}^2 \alpha = 1 - \cos^2 \alpha$ $\cos^2 \alpha = 1 - \operatorname{sen}^2 \alpha$

Integrales de la forma $\int \tan^n v dv$, $\int \cot^n v dv$ con n par o impar
 $\tan^2 \alpha = \sec^2 \alpha - 1$ $\cot^2 \alpha = \csc^2 \alpha - 1$

Integrales de la forma $\int \sec^n v dv$, $\int \csc^n v dv$ con n par

$$\sec^2 \alpha = 1 + \tan^2 \alpha \quad \csc^2 \alpha = 1 + \cot^2 \alpha$$

Integrales de la forma $\int \tan^m v \cdot \sec^n v dv$, $\int \cot^m v \cdot \csc^n v dv$ con n par y m par o impar

$$\sec^2 \alpha - \tan^2 \alpha = 1 \quad \csc^2 \alpha - \cot^2 \alpha = 1$$

Integrales de la forma $\int \operatorname{sen}^m v dv$, $\int \cos^n v dv$ con m y n par

$$\cos^2 \alpha = \frac{1}{2} + \frac{1}{2} \cos 2\alpha \quad \operatorname{sen}^2 \alpha = \frac{1}{2} - \frac{1}{2} \cos 2\alpha \quad \operatorname{sen} \alpha \cos \alpha = \frac{1}{2} \operatorname{sen} 2\alpha$$

www.promasmate.weebly.com