# INTEGRALES INMEDIATAS

| NORMA | RESPUESTA |
|---|---|
| $\int f(x)^n \cdot f'(x)dx \qquad n \neq -1$ | $\frac{f(x)^{n+1}}{n+1} + c$ |
| $\int \frac{f'(x)}{f(x)} dx$ | $\ln\lvert f(x)\rvert + c$ |
| $\int sen\, f(x) \cdot f'(x)dx$ | $-cos\, f(x) + c$ |
| $\int cos\, f(x) \cdot f'(x)dx$ | $sen\, f(x) + c$ |
| $\int \left(1 + tg^2 f(x)\right) \cdot f'(x)dx = \int \frac{f'(x)}{cos^2 f(x)} dx = \int (sec^2 f(x)) \cdot f'(x)dx$ | $tg\, f(x) + c$ |
| $\int \frac{f'(x)}{sen^2 f(x)} dx$ | $-cotg\, f(x) + c$ |
| $\int e^{f(x)} \cdot f'(x)dx$ | $e^{f(x)} + c$ |
| $\int a^{f(x)} \cdot f'(x)dx$ | $\frac{a^{f(x)}}{\mathrm{Ln}\, a} + c$ |
| $\int \frac{f'(x)}{1 + f(x)^2} dx$ | $arc.tg\, f(x) + c$ |
| $\int \frac{f'(x)}{\sqrt{1 - f(x)^2}} dx$ | $arc.sen\, f(x)$ |

Forma que deben tener las integrales para emplear el **método** de **INTREGRACIÓN POR PARTES**.

| | | |
|---|---|---|
| $\int x^n \cdot e^x \, dx$ | $u = x^n$ | $dv = e^x dx$ |
| $\int x^n \cdot Sen\, x \, dx$ | $u = x^n$ | $dv = Sen\, x \, dx$ |
| $\int x^n \cdot Cos\, x \, dx$ | $u = x^n$ | $dv = Cos\, x \, dx$ |
| $\int x^n \cdot \ln x \; dx$ | $u = \ln x$ | $dv = x^n \, dx$ |
| $\int arc.tg\, x \, dx$ | $u = arc.tg\, x$ | $dv = dx$ |
| $\int arc.Sen\, x \, dx$ | $u = arc.Sen\, x$ | $dv = dx$ |
| $\int \ln x \; dx$ | $u = \ln x$ | $dv = dx$ |