A.1 TABLA DE INTEGRALES DE FUNCIONES ELEMENTALES[1]

TIPOS	FORMA SIMPLE	FORMA COMPUESTA
Potencial $((a \neq 1))$	$\int x^a dx = \frac{x^{a+1}}{a+1}$	$\int f^a \cdot f' dx = \frac{f^{a+1}}{a+1}$
Logaritmico	$\int \frac{1}{x} dx = \ln x$	$\int \frac{f'}{f} dx = \ln f$
Seno	$\int \cos x\, dx = \sin x$	$\int \cos f \cdot f' dx = \sin f$
Coseno	$\int \sin x\, dx = -\cos x$	$\int \sin f \cdot f' dx = -\cos f$
Tangente	$\int sec^2 x\, dx = tg x$ $\int (1 + tg^2 x) dx = tg x$ $\int \frac{1}{\cos^2 x} dx = tg x$	$\int sec^2 f \cdot f' dx = tg f$ $\int (1 + tg^2 f) \cdot f' dx = tg f$ $\int \frac{f'}{\cos^2 f} dx = tg f$
Cotangente	$\int cosec^2 x\, dx = -ctg x$ $\int (1 + ctg^2 x) dx = -ctg x$ $\int \frac{1}{\sin^2 x} dx = -ctg x$	$\int cosec^2 f \cdot f' dx = -ctg f$ $\int (1 + ctg^2 f) \cdot f' dx = -ctg f$ $\int \frac{f'}{\sin^2 f} dx = -ctg f$
Arco Seno **(=Arco Coseno)**	$\int \frac{1}{\sqrt{1-x^2}} dx = arcsen x$ $= arccos x$	$\int \frac{f'}{\sqrt{1-f^2}} dx = arcsen f$ $= arccos f$
Arco Tangente **(=-Arco Cotangente)**	$\int \frac{1}{1+x^2} dx = arctg x$ $\int \frac{1}{a^2+x^2} dx = \frac{1}{a} arctg \frac{x}{a}$	$\int \frac{f'}{1+f^2} dx = arctg f$ $\int \frac{f'}{a^2+f^2} dx = \frac{1}{a} arctg \frac{f}{a}$

[1] Las funciones f y f', se han simplificado, dependen de la variable x, es decir, son respectivamente $f(x)$ y $f'(x)$.