

Tabela de Integrais Indefinidos Imediatos

$$\mathbf{T1.} \int x^p dx = \frac{x^{p+1}}{p+1} + C, \quad C \in \mathbb{R}, \quad p \in \mathbb{R} \setminus \{-1\}$$

$$\mathbf{T2.} \int \frac{1}{x} dx = \ln |x| + C, \quad C \in \mathbb{R}, \quad (\text{onde } x \in \mathbb{R}^+ \text{ ou } x \in \mathbb{R}^-)$$

$$\mathbf{T3.} \int e^x dx = e^x + C, \quad C \in \mathbb{R}$$

$$\mathbf{T4.} \int a^x dx = \frac{a^x}{\ln a} + C, \quad C \in \mathbb{R}, \quad a \in \mathbb{R}^+ \setminus \{1\}$$

$$\mathbf{T5.} \int \sin x dx = -\cos x + C, \quad C \in \mathbb{R}$$

$$\mathbf{T6.} \int \cos x dx = \sin x + C, \quad C \in \mathbb{R}$$

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$$\mathbf{T7.} \int \sec^2 x dx = \operatorname{tg} x + C, \quad C \in \mathbb{R}$$

$$\mathbf{T8.} \int \operatorname{cosec}^2 x dx = -\operatorname{cotg} x + C, \quad C \in \mathbb{R}$$

$$\mathbf{T9.} \int \frac{1}{\sqrt{1-x^2}} dx = \operatorname{arcsen} x + C, \quad C \in \mathbb{R}$$

$$\mathbf{T10.} \int \frac{1}{1+x^2} dx = \operatorname{arctg} x + C, \quad C \in \mathbb{R}$$

$$\mathbf{T11.} \int \sec x \operatorname{tg} x dx = \sec x + C, \quad C \in \mathbb{R}$$

$$\mathbf{T12.} \int \operatorname{cosec} x \operatorname{cotg} x dx = -\operatorname{cosec} x + C, \quad C \in \mathbb{R}$$

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Lista de Integrais Indefinidos Quase Imediatos

$$\mathbf{G1.} \int g'(x)g^p(x) dx = \frac{g^{p+1}(x)}{p+1} + C, \quad C \in \mathbb{R} \quad (\text{onde } p \in \mathbb{R} \setminus \{-1\})$$

$$\mathbf{G2.} \int \frac{g'(x)}{g(x)} dx = \ln |g(x)| + C, \quad C \in \mathbb{R}$$

$$\mathbf{G3.} \int g'(x)e^{g(x)} dx = e^{g(x)} + C, \quad C \in \mathbb{R}$$

$$\mathbf{G4.} \int g'(x)a^{g(x)} dx = \frac{a^{g(x)}}{\ln a} + C, \quad C \in \mathbb{R}, \quad a \in \mathbb{R}^+ \setminus \{1\}$$

$$\mathbf{G5.} \int g'(x) \sin(g(x)) dx = -\cos(g(x)) + C, \quad C \in \mathbb{R}$$

$$\mathbf{G6.} \int g'(x) \cos(g(x)) dx = \sin(g(x)) + C, \quad C \in \mathbb{R}$$

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$$\mathbf{G7.} \int g'(x) \sec^2(g(x)) dx = \operatorname{tg}(g(x)) + C, \quad C \in \mathbb{R}$$

$$\mathbf{G8.} \int g'(x) \operatorname{cosec}^2(g(x)) dx = -\operatorname{cotg}(g(x)) + C, \quad C \in \mathbb{R}$$

$$\mathbf{G9.} \int \frac{g'(x)}{\sqrt{1-(g(x))^2}} dx = \operatorname{arcsen}(g(x)) + C, \quad C \in \mathbb{R}$$

$$\mathbf{G10.} \int \frac{g'(x)}{1+(g(x))^2} dx = \operatorname{arctg}(g(x)) + C, \quad C \in \mathbb{R}$$

$$\mathbf{G11.} \int g'(x) \sec(g(x)) \operatorname{tg}(g(x)) dx = \sec(g(x)) + C, \quad C \in \mathbb{R}$$

$$\mathbf{G12.} \int g'(x) \operatorname{cosec}(g(x)) \operatorname{cotg}(g(x)) dx = -\operatorname{cosec}(g(x)) + C, \quad C \in \mathbb{R}$$

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