Universidade de São Paulo
Escola Superior de Agricultura "Luiz de Queiroz" - ESALQ
Disciplina: LCE0220 Cálculo II

Tabela de integrais imediatas

$$\int \underbrace{f(x)dx}_{\text{diferencial}} = \underbrace{F(x)+c}_{\text{Antiderivada}} \quad c \in \mathbb{R}$$

1. $\int dx = x + c$
2. $\int x^m dx = \dfrac{x^{m+1}}{m+1} + c \ (m \neq -1)$
3. $\int \dfrac{dx}{x} = \ln|x| + c$
4. $\int e^x dx = e^x + c$
5. $\int a^x dx = \dfrac{a^x}{\ln(a)} + c$
6. $\int \text{sen}(x)dx = -\cos(x) + c$
7. $\int \cos(x)dx = \text{sen}(x) + c$
8. $\int \sec^2(x)dx = \text{tg}(x) + c$
9. $\int \text{cossec}^2(x)dx = -\text{cotg}(x) + c$
10. $\int \sec(x)\text{tg}(x)dx = \sec(x) + c$
11. $\int \text{cossec}(x)\text{cotg}(x)dx = -\text{cossec}(x) + c$
12. $\int \dfrac{dx}{1+x^2} = \text{arctg}(x) + c$
13. $\int \dfrac{dx}{a^2+x^2} = \dfrac{1}{a}\text{arctg}\left(\dfrac{x}{a}\right) + c$
14. $\int \dfrac{dx}{\sqrt{1-x^2}} = \text{arcsen}(x) + c$
15. $\int \dfrac{dx}{\sqrt{a^2-x^2}} = \text{arcsen}\left(\dfrac{x}{a}\right) + c$
16. $\int \dfrac{dx}{x\sqrt{x^2-1}} = \text{arcsec}(x) + c$
17. $\int \dfrac{dx}{\sqrt{x^2+a}} = \ln|x + \sqrt{x^2+a}\,| + c$
18. $\int \dfrac{dx}{x^2-a^2} = \dfrac{1}{2a}\ln\left|\dfrac{a-x}{a+x}\right| + c$
19. $\int \text{sen}^2 x dx = \dfrac{1}{2}(x - \text{sen}x\cos x) + c$
20. $\int \cos^2 x dx = \dfrac{1}{2}(x + \text{sen}x\cos x) + c$