UFES - Departamento de Matemática
Primeira Prova - Cálculo 3 B
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TABELA DE INTEGRAIS

- $\int udv = uv - \int vdu$
- $\int tg^2(u)\, du = tg(u) - u + C$
- $\int tg(u)\, du = ln|sec(u)| + C$
- $\int \frac{du}{u^2 + a^2} = \frac{1}{a} arctg\, \frac{u}{a} + C$
- $\int \frac{du}{u\sqrt{u^2 - a^2}} = \frac{1}{a} sec^{-1}\, \frac{u}{a} + C$
- $\int \frac{du}{\sqrt{a^2 - u^2}} = \frac{1}{a} sen^{-1}\, \frac{u}{a} + C$
- $\int \frac{du}{u^2 - a^2} = \frac{1}{2a} ln \left| \frac{u-a}{u+a} \right| + C$
- $\int \sqrt{a^2 + u^2} du = \frac{u}{2}\sqrt{a^2 + u^2} + \frac{a^2}{2} ln(u + \sqrt{a^2 + u^2}) + C$
- $\int \frac{du}{\sqrt{a^2 + u^2}} = ln(u + \sqrt{a^2 + u^2}) + C$
- $\int \frac{du}{(a^2 + u^2)^{3/2}} = \frac{u}{a^2\sqrt{a^2 + u^2}} + C$
- $\int \frac{1}{u ln\, u} = ln|ln\, u| + C$
- Frações parciais (Caso Particular) $\frac{1}{(u-a)(u-b)} = \frac{1}{a-b}\left(\frac{1}{u-a} - \frac{1}{u-b}\right)$