UNIVERSIDADE FEDERAL DE ALFENAS-MG
Prof. José Paulo
Primeira Prova de Cálculo II, Química Licenciatura, et. al.
Segundo semestre de 2025

Nome:_____

Curso:_____

1. (4.0) Resolva as integrais abaixo:

   (a) $\displaystyle\int \frac{x^2\,dx}{\sqrt[4]{x^3+2}}$

   (b) $\displaystyle\int x^2\sqrt{x+1}\,dx$

   (c) $\displaystyle\int_0^{\pi/2} \sin^2 x\,dx$

   (d) $\displaystyle\int_0^1 \frac{x}{1+x^2}\,dx$

2. (3.0) Resolva as integrais abaixo:

   (a) $\displaystyle\int \sin^3 x \cos x\,dx$

   (b) $\displaystyle\int \ln(x^2+1)\,dx$

3. (3.0) Resolva as integrais definidas:

   (a) $\displaystyle\int_1^2 t^2\ln(t)dt$

   (b) $\displaystyle\int_{\frac{\pi}{2}}^{\pi} sen(y)e^{cos(y)}dy$