

Lista 7 - Cálculo de integrais impróprias

Calcule:

1. $\int_2^{+\infty} \frac{1}{x^5} dx$

2. $\int_0^{+\infty} e^{-3x} dx$

3. $\int_1^{+\infty} \frac{1}{\sqrt[3]{x}} dx$

4. $\int_0^{+\infty} \frac{3}{1+x^2} dx$

5. $\int_0^{+\infty} \frac{x}{1+x^4} dx$

6. $\int_0^{+\infty} xe^{-3x} dx$

7. $\int_0^1 \frac{1}{\sqrt[3]{x}} dx$

8. $\int_e^{+\infty} \frac{1}{x \ln^2 x} dx$

9. $\int_0^2 \frac{1}{\sqrt{2-x}} dx$

10. $\int_0^1 \frac{x}{\sqrt{1-x^2}} dx$

11. $\int_1^3 \frac{x^2}{\sqrt{x^3-1}} dx$

12. $\int_{-\infty}^0 xe^{-x^2} dx$