

Analisi Matematica 1 - Esercitazione 12

Esercizio 1. Calcolare i seguenti integrali:

1. $\int x^2 \sin x \, dx$

2. $\int \frac{\ln^3 x}{x} \, dx$

3. $\int x^5 e^{-3x^3} \, dx$

4. $\int \frac{1}{2 + 3\sqrt{x}} \, dx$

5. $\int \frac{12 - 5x}{3x^2 + x - 10} \, dx$

6. $\int \frac{5x^3 - 9x^2}{x^2 - 2x + 1} \, dx$

7. $\int \frac{4x}{x^2 - 4x + 13} \, dx$

8. $\int \frac{1}{2 \cos x + 5} \, dx$

9. $\int \frac{1}{(x - 1)^3(x + 2)} \, dx$

10. $\int \frac{\sin^2 x}{(\sin x + \cos x + 1)^2} \, dx$