

# Analisi Matematica 1 - Esercitazione 13

**Esercizio 1.** Calcolare i seguenti integrali:

1.  $\int \frac{1}{4 \sin x + 3 \cos x} dx$

2.  $\int \tan^3 x dx$

3.  $\int \frac{\sin x}{(2 \cos x + \sin x)^3} dx$

4.  $\int \frac{1}{\sqrt{4x^2 - 3}} dx$

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

6.  $\int \frac{1}{(2x + 1)\sqrt{2x^2 + x - 1}} dx$

7.  $\int \sqrt{5 - x^2} dx$

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

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

10.  $\int \frac{\sqrt{x}}{2 + \sqrt{x + 4}} dx$

11.  $\int \frac{dx}{\sin x(2 + \cos x)}$

12.  $\int \frac{1}{x\sqrt{5 \log^2 x + \log x - 2}} dx$

13.  $\int \frac{\sqrt[3]{x}}{1 + \sqrt{x}} dx$

14.  $\int x \ln(x^3 + x - 2) dx$