

Integrali di funzioni razionali fratte

del tipo $\int \frac{mx+n}{ax^2+bx+c} dx$, con $\Delta = b^2 - 4ac > 0$

1) $\int \frac{x+2}{(x+1)(x+3)} dx$

Ris. $\frac{1}{2} \ln|x+1| + \frac{1}{2} \ln|x+3| + C$

2) $\int \frac{x+3}{x^2-5x-6} dx = \int \frac{x+3}{(x+1)(x-6)} dx$

Ris. $-\frac{2}{7} \ln|x+1| + \frac{9}{7} \ln|x-6| + C$

3) $\int \frac{2x-5}{4x^2+7x-2} dx$

Ris. $-\frac{1}{2} \ln|4x-1| + 2 \ln|x+2| + C$

4) $\int \frac{3x+5}{x^2+x-6} dx$

5) $\int \frac{2x-1}{6x^2+5x+1} dx = \int \frac{2x-1}{(2x+1)(3x+1)} dx$

6) $\int \frac{x-1}{4x^2-1} dx$

Ris. $-\frac{1}{8} \ln|2x-1| + \frac{3}{8} \ln|2x+1| + C$

7) $\int \frac{x+4}{x^2-4x+3} dx$

8) $\int \frac{3-x}{2x^2+5x-7} dx$

Ris. $-\frac{13}{18} \ln|2x+7| + \frac{2}{9} \ln|x-1| + 1$