

Integrali di funzioni razionali fratte

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

Esercizi

- 1) $\int \frac{4}{9x^2 - 12x + 4} dx = -\frac{4}{3(3x-2)} + C$
- 2) $\int \frac{12x-3}{4x^2+4x+1} dx = 3\ln|2x+1| + \frac{9}{2(2x+1)} + C$
- 3) $\int \frac{2x+5}{x^2+6x+9} dx = 2 \cdot \ln|x+3| + \frac{1}{x+3} + C$
- 4) $\int \frac{8x^2-5}{4x^2-12x+9} dx = 2x + 6 \cdot \ln|2x-3| - \frac{13}{2x-3} + C$
- 5) $\int \frac{x^3+2x^2-1}{x^2-10x+25} dx = \frac{x^2}{2} + 12x + 95\ln|x-5| - \frac{174}{x-5} + C$
- 6) $\int \frac{1}{x^2+10x+25} dx = -\frac{1}{x+5} + C$
- 7) $\int \frac{5}{3x^2+6x+3} dx = -\frac{5}{3(x+1)} + C$
- 8) $\int \frac{x}{(2x+7)^2} dx = \frac{1}{4}\ln|2x+7| + \frac{7}{4(2x+7)} + C$
- 9) $\int \frac{x+1}{x^2+6x+9} dx = \ln|x+3| + \frac{2}{x+3} + C$
- 10) $\int \frac{x^4+4x^2}{x^2-2x+1} dx = \frac{x^3}{3} + x^2 + 7x + 16\ln|x-1| - \frac{23}{x-1} + C$