Esercizi sugli integrali

Lista n.4 di martedì 12 marzo 2002

Calcolare i seguenti integrali di funzioni razionali:

$\boxed{71}$ $\displaystyle\int \frac{4x+10}{x^2+6x+8}\,dx$ $\boxed{72}$ $\displaystyle\int \frac{3x+11}{x^2+8x+15}\,dx$ $\boxed{73}$ $\displaystyle\int \frac{x^3+x^2+5x+5}{x^2+4}\,dx$

$\boxed{74}$ $\displaystyle\int \frac{x^3+x^2+11x+12}{x^2+9}\,dx$ $\boxed{75}$ $\displaystyle\int \frac{3x^3+7x^2+9x+3}{x^4+2x^3+2x^2+2x+1}\,dx$

$\boxed{76}$ $\displaystyle\int \frac{-x^3+6x^2-9x+2}{x^4-2x^3+2x^2-2x+1}\,dx$

Calcolare i seguenti integrali ricorrendo anche a qualche trucco:

$\boxed{77}$ $\displaystyle\int \frac{x^{11}}{x^{12}-1}\,dx$ $\boxed{78}$ $\displaystyle\int \frac{x^{11}+2x^6+2x^5+2}{x^6+1}\,dx$ $\boxed{79}$ $\displaystyle\int \frac{x^3}{x^8+1}\,dx$

$\boxed{80}$ $\displaystyle\int \frac{x}{x^6+3x^4+3x^2+2}\,dx$ $\boxed{81}$ $\displaystyle\int \frac{x^3}{x^8+4x^4+8}\,dx$ $\boxed{82}$ $\displaystyle\int \frac{1}{x^7-x}\,dx$

$\boxed{83}$ $\displaystyle\int \frac{1}{x(x^3-1)(x^6+1)}\,dx$ $\boxed{84}$ $\displaystyle\int \frac{1}{x(x^8-1)}\,dx$