Integrali indefiniti

Integrali del tipo

$\int x^{\alpha} dx = \frac{x^{\alpha+1}}{\alpha+1} + c; \qquad \alpha \neq -1$

$\int \frac{1}{x} dx = \ln(x) + c; \qquad \alpha = -1$

$\int 4dx$ $\qquad$ $\int x^5 dx$ $\qquad$ $\int 3\sqrt{x}dx$

$\int \frac{4}{5}\sqrt[3]{x^2}dx$ $\qquad$ $\int \frac{1}{x^2}dx$ $\qquad$ $\int \frac{5}{\sqrt{x}}dx$

$\int x^{-3}dx$ $\qquad$ $\int \frac{1}{\sqrt[3]{x}}dx$ $\qquad$ $\int (5x^2 - 3x + 2)dx$

$\int \left(2\sqrt{x} - \frac{3}{\sqrt{x}}\right) dx$ $\qquad$ $\int \frac{1}{\sqrt[3]{x}}dx$ $\qquad$ $\int (5x^2 - 3x + 2)dx$

$\int \frac{4}{x^3} - \frac{2}{x^2}dx$ $\qquad$ $\int \frac{1}{x^2} - \sqrt{x} + \frac{5}{x}dx$ $\qquad$ $\int \frac{5x^2+2x}{x^2}dx$

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Integrali delle funzioni elementari

$\int e^x dx = e^x + c; \qquad \int senx\, dx = -cosx + c; \qquad \int cosx\, dx = senx + c$

$\int \frac{1}{cos^2x}dx = tgx + c; \qquad \int \frac{1}{sen^2x}dx = -cotgx + c;$

$\int \frac{1}{\sqrt{1-x^2}}dx = arcsenx + c; \qquad \int \frac{1}{1+x^2}dx = arctgx + c$

$\int e^x + senx - 2cosxdx$ $\qquad$ $\int \frac{2}{x^2} + \sqrt[3]{x} - \frac{1}{cos^2x}dx$

$\int \frac{1}{1+x^2} + sen2xdx$ $\qquad$ $\int 3senx + \frac{e^x}{3} - \frac{4}{1+x^2}dx$

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

Integrali del tipo

$$\int f(x)^{\alpha} f'(x)dx = \frac{f(x)^{\alpha+1}}{\alpha+1} + c; \qquad \alpha \neq -1$$

$$\int \frac{f'(x)}{f(x)}dx = \ln|f(x)| + c; \qquad \alpha = -1$$

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

$$\int \sqrt{3x+1}dx \qquad \int (2x-3)^2 dx$$

$$\int 2senxcos^2xdx \qquad \int x(5-2x^2)^3 dx$$

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

$$\int \frac{4x^3}{\sqrt[3]{(x^4-1)^2}}dx \qquad \int e^{2x}\sqrt{1+e^{2x}}dx$$

$$\int \frac{senx-sen^2x}{cos^4x}dx \qquad \int \frac{x^2-lnx}{x}dx$$

$$\int \frac{cos2x}{3\sqrt{sen2x}}dx \qquad \int tgxdx$$

$$\int \frac{arctgx}{1+x^2}dx \qquad \int \frac{1-arctgx}{1+x^2}dx$$

$$\int \frac{3x+arctgx}{1+x^2}dx \qquad \int \frac{e^x}{1+4e^x}dx$$

Integrali del tipo

$$\int e^{f(x)} f'(x)dx = e^{f(x)} + c$$

$\int e^{-x} + 3xdx$

$\int e^{senx} cosxdx$

$\int e^{4x+3} dx$

$\int x \cdot e^{x^2} dx$

$\int e^{xsenx}(senx + xcosx)dx$

$\int \frac{3e^{\frac{1}{x}}}{x^2} dx$

$\int \frac{e^{2\sqrt{x}}}{\sqrt{x}} dx$

$\int \frac{e^{arctgx}}{1+x^2} dx$

Integrali del tipo

$$\int f'(x)sen(f(x)\, dx = -\cos\,(f(x) + c; \qquad \int f'(x)cos(f(x)\, dx = sen\,(f(x) + c$$

$$\int \frac{f'(x)}{cos^2 f(x)} dx = tg(f(x) + c; \qquad \int \frac{f'(x)}{sen^2 f(x)} dx = cotg\,(f(x) + c$$

$\int cos(4x - 1)dx$

$\int \frac{x+2}{cos^2(x^2+4x)} dx$

$\int x^2 cos(x^3)dx$

$\int cos\left(x + \frac{\pi}{2}\right) dx$

$\int x^2 cos(x^3 - 1)dx$

$\int \frac{cos(lnx)}{x} dx$

$\int \frac{cos(\sqrt{x})}{3\sqrt{x}} dx$

$\int (2x - 3)cos(x^2 - 3x)dx$

$\int \frac{3}{xcos^2(lnx)} dx$

$\int \frac{x}{cos^2 3x^2} dx$

Integrali del tipo

$$\int \frac{f'(x)}{\sqrt{1-f^2(x)}}dx = arcsen(f(x) + c; \qquad \int \frac{f'(x)}{1+f^2(x)}dx = arctg\ (f(x) + c$$

$$\int \frac{e^x}{1+e^{2x}}dx \qquad \int \frac{x}{1+x^4}dx$$

$$\int \frac{3x}{\sqrt{1-x^2}}dx \qquad \int \frac{cosx}{1+sen^2x}dx$$

$$\int \frac{2x}{4+x^4}dx \qquad \int \frac{x}{1+x^4}dx$$