# INTEGRALI COMPOSTI

$$\int \underbrace{e^{x^2}}_{e^{f(x)}} \cdot \underbrace{2x}_{f'(x)}\, dx = e^{x^2} + c$$

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

$$\int e^{x^2} \cdot x\, dx = \frac{1}{2}\int \underbrace{e^{x^2}}\cdot \underbrace{2}x\, dx$$

$$= \frac{1}{2} e^{x^2} + c$$

$y = e^x \longrightarrow y' = e^x$

$y = e^{5x} \longrightarrow y' = e^{5x} \cdot 5$

$y = e^{x^2} \longrightarrow y' = e^{x^2} \cdot 2x$

$y = e^{f(x)} \longrightarrow y = e^{f(x)} \cdot f'(x)$

$$\int e^{3x+1}\,dx = \frac{1}{3}\int 3\,e^{3x+1}\,dx = \frac{1}{3}e^{3x+1} + c$$

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

$$\cancel{\int e^{x^3}\,dx}$$

$$\int \left(e^{x} + 1\right) dx$$

$$\int e^{x^7} \cdot x^6\,dx = \frac{1}{7}\int e^{x^7} \cdot 7x^6\,dx = \frac{1}{7}e^{x^7} + c$$

$$\int e^{\operatorname{sen} x} \cdot \cos x\,dx = e^{\operatorname{sen} x} + c$$

$$\int e^{-2\operatorname{sen} x} \cdot \cos x\,dx =$$

$$= -\frac{1}{2}\int e^{-2\operatorname{sen} x} \cdot (-2\cos x)\,dx =$$

$$= -\frac{1}{2}e^{-2\operatorname{sen} x} + c$$

$$4x^3+2x$$

$$\int (2x^3+x)\, e^{x^4+x^2}\, dx = \frac{1}{2}\int 2(2x^3+x)\, e^{x^4+x^2}\, dx$$

$$= \frac{1}{2} e^{x^4+x^2} + C$$