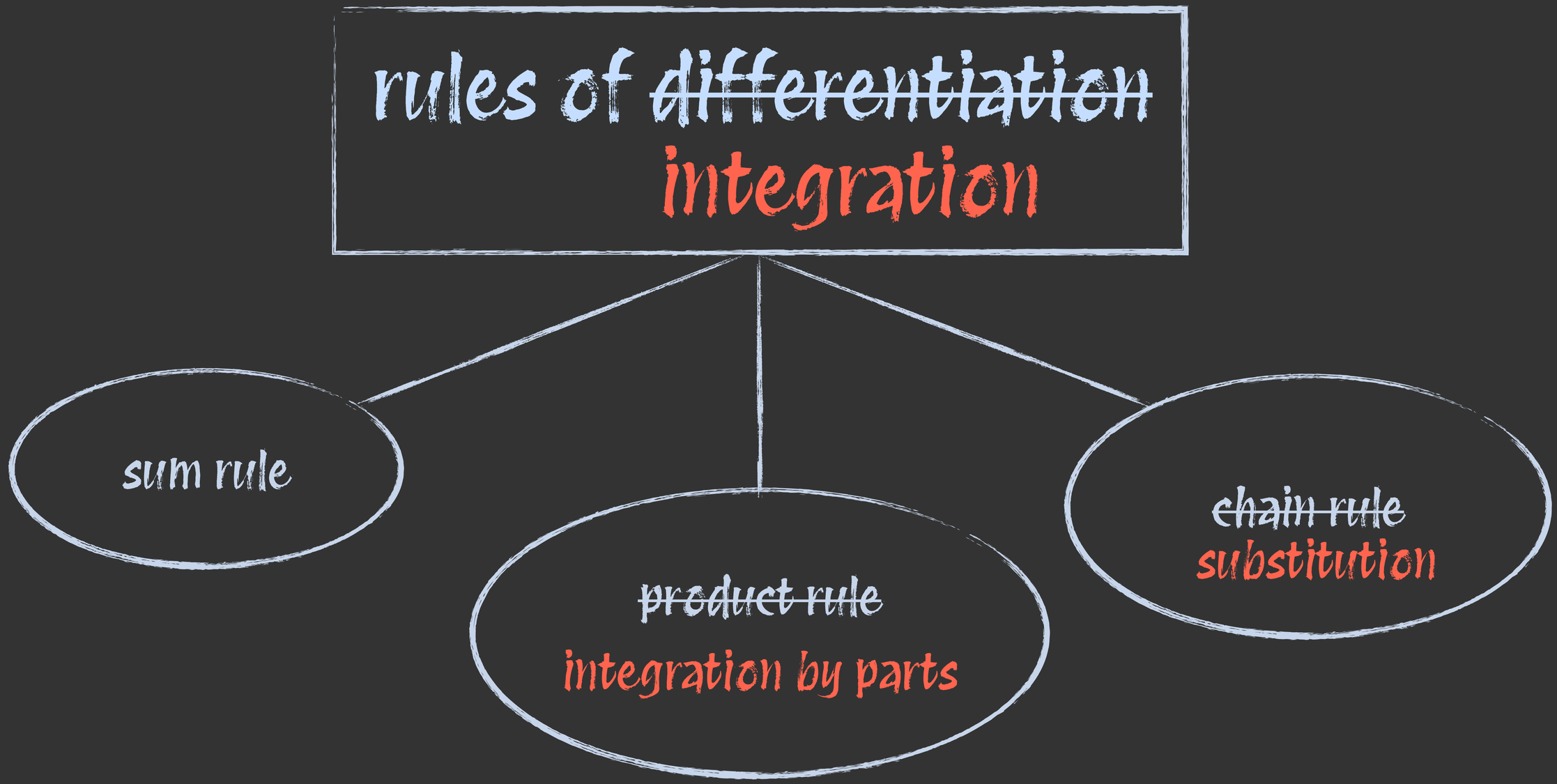
some antiderivatives

function $f(x)$	antiderivative $\int f(x)\,dx$
$f(x) = a$	$\int f(x)\,\mathrm{d}x = ax + C$
$f(x) = ax^n$	$\int f(x)\,\mathrm{d}x = \frac{ax^{(n+1)}}{n+1} + C$
$f(x) = ax^{-1}$	$\int f(x)\,\mathrm{d}x = a\ln\lvert x\rvert + C$
$f(x) = ae^{kx}$	$\int f(x)\,\mathrm{d}x = \frac{1}{k}ae^{kx} + C$
$f(x) = a\cos(kx)$	$\int f(x)\,\mathrm{d}x = \frac{1}{k}a\sin(kx) + C$
$f(x) = a\sin(kx)$	$\int f(x)\,\mathrm{d}x = -\frac{1}{k}a\cos(kx) + C$


rules of ~~differentiation~~
integration
sum rule
~~product rule~~
integration by parts
~~chain rule~~
substitution