Partiell integration

Produktregeln ger

$$\frac{d}{dx}(f(x)\cdot h(x)) = f'(x)\cdot h(x) + f(x)\cdot h'(x) \Rightarrow$$

$$f(x)\cdot h(x) = \int f'(x)\cdot h(x)\,dx + \int f(x)\cdot h'(x)\,dx$$

Om vi kallar $h'(x) = g(x) \Rightarrow h(x) = G(x)$

$$\int f(x)\cdot g(x) = f(x)\cdot G(x) - \int f'(x)\cdot G(x)\,dx$$