Ex 36

$$f(x) = x + 3 - \frac{4}{x^3} = x + 3 - 4x^{-3}$$

f	F
x^n $n \neq -1$	$\frac{x^{n+1}}{n+1}$

$$F(x) = \frac{x^2}{2} + 3x - 4\,\frac{x^{-3+1}}{-3+1} + C =$$

$$= \frac{x^2}{2} + 3x - 4\,\frac{x^{-2}}{-2} + C =$$

$$= \frac{x^2}{2} + 3x + \frac{2}{x^2} + C$$

Ex 37

$$f(x) = x\,(x^2+1)^2$$

$$u = x^2 + 1 \qquad u' = 2x$$

$$f(x) = \frac{1}{2}\,2x\,(x^2+1)^2 = \frac{1}{2}\,u'\,u^2$$

f	F
$u'\,u^n$	$\frac{u^{n+1}}{n+1}$

$$F(x) = \frac{1}{2}\,\frac{(x^2+1)^3}{3}$$

Ex 38

$$f(x) = \frac{2e^x}{e^x + 1} = 2\,\frac{e^x}{e^x + 1}$$

$$u = e^x + 1 \qquad u' = e^x$$

$$f(x) = 2\,\frac{u'}{u}$$

f	F
$\frac{u'}{u}$	$\ln(u)$

$$F(x) = 2\ln(e^x + 1)$$