I. Đạo hàm :

$(x^{\alpha})' = \alpha.x^{\alpha-1}$	$(u^{\alpha})' = \alpha.u^{\alpha-1}.u'$
$(\sqrt{x})' = \dfrac{1}{2\sqrt{x}}$	$(\sqrt{u})' = \dfrac{u'}{2\sqrt{u}}$
$\left(\dfrac{1}{x}\right)' = -\dfrac{1}{x^2}$	$\left(\dfrac{1}{u}\right)' = -\dfrac{u'}{u^2}$
$(\sin x)' = \cos x$	$(\sin u)' = u'.\cos u$
$(\cos x)' = -\sin x$	$(\cos u)' = -u'.\sin u$
$(tgx)' = \dfrac{1}{\cos^2 x}$	$(tgu)' = \dfrac{u'}{\cos^2 u}$
$(cotgx)' = -\dfrac{1}{\sin^2 x}$	$(cotgu)' = -\dfrac{u'}{\sin^2 u}$
$(e^{x})' = e^{x}$	$(e^{u})' = u'.e^{u}$
$a^{x} = a^{x}.\ln a$	$a^{u} = u'.a^{u}.\ln a$
$(\ln x)' = \dfrac{1}{x}$	$(\ln u)' = \dfrac{u'}{u}$
$(\log_a x)' = \dfrac{1}{x.\ln a}$	$(\log_a u)' = \dfrac{u'}{u.\ln a}$

II. Bảng các nguyên hàm :

$\int dx = x + C$	$\int a^x dx = \dfrac{a^x}{\ln a} + C$
$\int x^{\alpha} dx = \dfrac{x^{\alpha+1}}{\alpha+1} + C \quad (\alpha \neq -1)$	$\int \cos x dx = \sin x + C$
$\int \dfrac{dx}{x^2} = -\dfrac{1}{x} + C$	$\int \sin x dx = -\cos x + C$
$\int \dfrac{dx}{x} = \ln\lvert x\rvert + C$	$\int \dfrac{dx}{\cos^2 x} = tgx + C$
$\int e^x dx = e^x + C$	$\int \dfrac{dx}{\sin^2 x} = -\cot gx + C$

Chú ý : Nếu $\int f(x)dx = F(x) + C$ thì $\int f(ax+b)\,dx = \dfrac{1}{a}F(ax+b) + C$