<u>Tableau des dérivées</u>

$(x^n)' = n.x^{n-1} \quad \forall x \in \mathbb{R} \quad \forall n \in \mathbb{N}\backslash\{1\}$	$(\mathbf{U^n})' = \mathbf{n.U'.U^{n-1}}$, $\mathbf{U(I)} \subseteq \mathbb{R}$
$(\sqrt{x})' = \frac{1}{2\sqrt{x}} \quad \forall x \in]0;+\infty[= \mathbb{R}_+^*$	$(\sqrt{\mathbf{U}})' = \frac{\mathbf{U'}}{\mathbf{2\sqrt{U}}}$, $\mathbf{U(I)} \subseteq]0;+\infty[= \mathbb{R}_+^*$
$\left(\frac{1}{x}\right)' = -\frac{1}{x^2} \quad \forall x \in \mathbb{R}^*$	$\left(\frac{\mathbf{1}}{\mathbf{U}}\right)' = \frac{\mathbf{-U'}}{\mathbf{U^2}}$, $\mathbf{U(I)} \subseteq \mathbb{R}^*$
$(e^x)' = e^x \quad \forall x \in \mathbb{R}$	$(\mathbf{e^U})' = \mathbf{U'.e^U}$, $\mathbf{U(I)} \subseteq \mathbb{R}$
$(\ln(x))' = \frac{1}{x} \quad \forall x \in]0;+\infty[= \mathbb{R}_+^*$	$(\mathbf{ln(U)})' = \frac{\mathbf{U'}}{\mathbf{U}}$, $\mathbf{U(I)} \subseteq]0;+\infty[= \mathbb{R}_+^*$
$(\sin(x))' = \cos(x) \quad \forall x \in \mathbb{R}$	$(\mathbf{sin(U)})' = \mathbf{U'.cos\,(U)}$, $\mathbf{U(I)} \subseteq \mathbb{R}$
$(\cos(x))' = -\sin(x) \quad \forall x \in \mathbb{R}$	$(\mathbf{cos(U)})' = \mathbf{-U'.sin\,(U)}$, $\mathbf{U(I)} \subseteq \mathbb{R}$
$(\tan(x))' = \frac{1}{\cos^2(x)} = 1 + \tan^2(x)$ $\forall x \in \mathbb{R} - \left\{\frac{\pi}{2} + k\pi; k\epsilon\mathbb{Z}\right\}$	$(\mathbf{tan(U)})' = \frac{\mathbf{U'}}{\mathbf{cos^2(U)}} = \left(\mathbf{1 + tan^2(U)}\right).\mathbf{U'}$ $\mathbf{U(I)} \subseteq \mathbb{R} - \left\{\frac{\pi}{2} + k\pi; k\epsilon\mathbb{Z}\right\}$

Tableau des Primitives

$\int x^{\alpha}.dx = \frac{x^{\alpha+1}}{\alpha+1} + cte \; ; \; \alpha \neq -1$	$\int U'.U^{\alpha}dx = \frac{U^{\alpha+1}}{\alpha+1} + cte \; ; \; \alpha \neq -1$
$\int \frac{1}{2\sqrt{x}}dx = \sqrt{x} + cte$	$\int \frac{U'}{2\sqrt{U}}dx = \sqrt{U} + cte$
$\int e^{x}.dx = e^{x} + cte$	$\int U'.e^{U}.dx = e^{U} + cte$
$\int \frac{1}{x}dx = \ln(\lvert x \rvert) + cte$	$\int \frac{U'}{U}dx = \ln(\lvert U \rvert) + cte$
$\int \frac{1}{x^2}dx = -\frac{1}{x} + cte$	$\int \frac{U'}{U^2}dx = -\frac{1}{U} + cte$
$\int \cos(x).dx = \sin(x) + cte$	$\int U'.\cos(U).dx = \sin(U) + cte$
$\int \sin(x).dx = -\cos(x) + cte$	$\int U'.\sin(U).dx = -\cos(U) + cte$
$\int \frac{1}{\cos^2(x)}.dx = \tan(x) + cte$	$\int \frac{U'}{\cos^2(U)}.dx = \tan(U) + cte$
$\int (1+\tan^2(x)).dx = \tan(x) + cte$	$\int U'.(1+\tan^2(U)).dx = \tan(U) + cte$
$\int \frac{1}{1+x^2}.dx = \arctan(x) + cte$	$\int \frac{U'}{1+U^2}.dx = \arctan(U) + cte$