













Dérivées usuelles

$$f'(u) \cdot u'$$

u est une variable dépendant de x
(i.e. une parenthèse contenant x)

u' désigne la dérivée de u par rapport à x

| $f(x)$ | $f'(x)$ | $f(u)$ | $f'(u) \cdot u'$ |
|---|-----------------------|---------------|--------------------------------|
|  k | 0 | | |
|  x | 1 | | |
|  x^2 | $2x$ | u^2 | $2u \cdot u'$ |
|  x^3 | $3x^2$ | u^3 | $3u^2 \cdot u'$ |
|  x^n | nx^{n-1} | u^n | $nu^{n-1} \cdot u'$ |
|  $\frac{1}{x}$ | $-\frac{1}{x^2}$ | $\frac{1}{u}$ | $-\frac{1}{u^2} \cdot u'$ |
|  \sqrt{x} | $\frac{1}{2\sqrt{x}}$ | \sqrt{u} | $\frac{1}{2\sqrt{u}} \cdot u'$ |
|  e^x | e^x | e^u | $e^u \cdot u'$ |
|  $\ln x$ | $\frac{1}{x}$ | $\ln u$ | $\frac{1}{u} \cdot u'$ |
|  $\sin x$ | $\cos x$ | $\sin u$ | $(\cos u) \cdot u'$ |
|  $\cos x$ | $-\sin x$ | $\cos u$ | $-(\sin u) \cdot u'$ |
|  $\tan x$ | $\frac{1}{\cos^2 x}$ | $\tan u$ | $\frac{1}{\cos^2 u} \cdot u'$ |
| ou | $1 + \tan^2 x$ | ou | $(1 + \tan^2 u) \cdot u'$ |
| ku | ku' | uv | $u'v + uv'$ |
| $u + v$ | $u' + v'$ | $\frac{u}{v}$ | $\frac{u'v - uv'}{v^2}$ |