

TABLE OF DERIVATIVES

| FUNCTION | DERIVATIVE |
|--------------------|-----------------------------|
| C | 0 |
| Cx | C |
| x^a | ax^{a-1} |
| $\sin x$ | $\cos x$ |
| $\cos x$ | $-\sin x$ |
| $\tan x$ | $(\sec x)^2$ |
| $\sec x$ | $\sec x \tan x$ |
| e^x | e^x |
| $\ln x $ | $\frac{1}{x}$ |
| a^x | $(\ln a)a^x$ |
| $\log_b x$ | $\frac{1}{(\ln b)x}$ |
| $\sinh x$ | $\cosh x$ |
| $\cosh x$ | $\sinh x$ |
| $\tanh x$ | $(\operatorname{sech} x)^2$ |
| $\arcsin x$ | $\frac{1}{\sqrt{1-x^2}}$ |
| $\arccos x$ | $-\frac{1}{\sqrt{1-x^2}}$ |
| $\arctan x$ | $\frac{1}{x^2+1}$ |
| $\int_a^x f(t) dt$ | $f(x)$ |

Multiply by current power. Add 1 to power.

