

| $y = f(x)$               | $\frac{dy}{dx} = f'(x)$          |
|--------------------------|----------------------------------|
| $\ln x$                  | $\frac{1}{x}$                    |
| $e^{ax}$                 | $ae^{ax}$                        |
| $\sin x$                 | $\cos x$                         |
| $\cos x$                 | $-\sin x$                        |
| $\tan x$                 | $\sec^2 x$                       |
| $\sec x$                 | $\sec x \tan x$                  |
| $\operatorname{cosec} x$ | $-\operatorname{cosec} x \cot x$ |
| $\cot x$                 | $-\operatorname{cosec}^2 x$      |