

1. $\frac{d}{dx}(\sin x) = \cos x$
2. $\frac{d}{dx}(\cos x) = -\sin x$
3. $\frac{d}{dx}(\tan x) = \sec^2 x$
4. $\frac{d}{dx}(\cot x) = -\operatorname{csc}^2 x$
5. $\frac{d}{dx}(\sec x) = \sec x \tan x$
6. $\frac{d}{dx}(\csc x) = -\csc x \cot x$
7. $\frac{d}{dx}(\sinh x) = \cosh x$
8. $\frac{d}{dx}(\cosh x) = \sinh x$
9. $\frac{d}{dx}(\tanh x) = \operatorname{sech}^2 x$
10. $\frac{d}{dx}(\coth x) = -\operatorname{csch}^2 x$
11. $\frac{d}{dx}(\operatorname{sech} x) = -\operatorname{sech} x \tanh x$
12. $\frac{d}{dx}(\operatorname{csch} x) = -\operatorname{csch} x \cdot \coth x$

$$1. \frac{d}{dx}(\sin^{-1} x) = \frac{1}{\sqrt{1-x^2}}$$

$$2. \frac{d}{dx}(\cos^{-1} x) = -\frac{1}{\sqrt{1-x^2}}$$

$$3. \frac{d}{dx}(\tan^{-1} x) = \frac{1}{1+x^2}$$

$$4. \frac{d}{dx}(\cot^{-1} x) = -\frac{1}{1+x^2}$$

$$5. \frac{d}{dx}(\sec^{-1} x) = \frac{1}{|x|\sqrt{x^2-1}}$$

$$6. \frac{d}{dx}(\csc^{-1} x) = -\frac{1}{|x|\sqrt{x^2-1}}$$

$$1. \frac{d}{dx}(a^x) = a^x \ln a$$

$$2. \frac{d}{dx}(e^x) = e^x$$

$$3. \frac{d}{dx}(\log_a x) = \frac{1}{(\ln a)x}$$

$$4. \frac{d}{dx}(\ln x) = 1/x$$