$$\int x^n\,dx = \frac{1}{n+1}x^{n+1} \text{ if } n \neq -1$$

$$\int e^x\,dx = e^x$$

$$\int \cos(x)\,dx = \sin(x)$$

$$\int \tan(x)\,dx = \ln(|\sec(x)|)$$

$$\int \sec(x)\,dx = \ln(|\sec(x)+\tan(x)|)$$

$$\int \frac{1}{\sqrt{x^2+1}}\,dx = \ln(|x+\sqrt{x^2+1}|)$$

$$\int \frac{1}{\sqrt{1-x^2}}\,dx = \arcsin(x)$$

$$\int x^{-1}\,dx = \ln|x|$$

$$\int \ln(|x|)\,dx = x\ln(|x|)-x$$

$$\int \sin(x)\,dx = -\cos(x)$$

$$\int \cot(x)\,dx = \ln(|\sin(x)|)$$

$$\int \csc(x)\,dx = \ln(|\csc(x)-\cot(x)|)$$

$$\int \frac{1}{\sqrt{x^2-1}}\,dx = \ln(|x+\sqrt{x^2-1}|)$$

$$\int \frac{1}{1+x^2}\,dx = \arctan(x)$$

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

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

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

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

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

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