

$$\cos^2 x = 1 - \sin^2 x \Rightarrow \int \frac{dx}{\sqrt{a^2 - x^2}} = \arcsin\left(\frac{x}{a}\right)$$

$$\sec^2 x = 1 + \tan^2 x \Rightarrow \int \frac{dx}{a^2 + x^2} = \frac{1}{a} \arctan\left(\frac{x}{a}\right)$$

$$\sinh^2 x = \cosh^2 x - 1 \Rightarrow \int \frac{dx}{\sqrt{x^2 - a^2}} = \operatorname{arcsinh}\left(\frac{x}{a}\right)$$

$$\cosh^2 x = 1 + \sinh^2 x \Rightarrow \int \frac{dx}{\sqrt{a^2 + x^2}} = \operatorname{arsinh}\left(\frac{x}{a}\right)$$

$$\operatorname{sech}^2 x = 1 - \tanh^2 x \Rightarrow \int \frac{dx}{a^2 - x^2} = \frac{1}{a} \operatorname{arctanh}\left(\frac{x}{a}\right)$$