

$$\sinh x = \frac{e^x - e^{-x}}{2}$$

$$\cosh x = \frac{e^x + e^{-x}}{2}$$

$$\tanh x = \frac{e^{2x} - 1}{e^{2x} + 1}$$

$$\operatorname{cosech} x = \frac{1}{\sinh x}$$

$$\operatorname{sech} x = \frac{1}{\cosh x}$$

$$\cosh^2 x - \sinh^2 x = 1$$

$$\coth^2 x - 1 = \operatorname{cosech}^2 x$$

$$\operatorname{cosech} x = \frac{2}{e^x - e^{-x}}$$

$$\operatorname{sech} x = \frac{2}{e^x + e^{-x}}$$

$$\coth x = \frac{e^{2x} + 1}{e^{2x} - 1}$$

$$\coth x = \frac{1}{\tanh x}$$

$$\tanh x = \frac{\sinh x}{\cosh x}$$

$$1 - \tanh^2 x = \operatorname{sech}^2 x$$

$$\cosh 2x = 2 \cosh^2 x - 1$$

$\sinh 2x = 2 \sinh x \cosh x$	$\cosh 2x = 1 + 2 \sinh^2 x$
$\tanh 2x = \frac{2 \tanh x}{1 + \tanh^2 x}$	$\cosh 2x = \cosh^2 x + \sinh^2 x$
$\sinh(A \pm B) = \sinh A \cosh B \pm \cosh A \sinh B$	
$\cosh(A \pm B) = \cosh A \cosh B \pm \sinh A \sinh B$	
$\text{arsinh } x = \ln(x + \sqrt{x^2 + 1})$	$\text{arcosech } x =$
$\text{arcosh } x = \ln(x + \sqrt{x^2 - 1})$	$\text{arsech } x = \ln\left(\frac{1 + \sqrt{1 - x^2}}{x}\right)$
$\text{artanh } x = \frac{1}{2} \ln\left(\frac{1+x}{1-x}\right)$	$\text{arcoth } x =$