

$$\frac{e^x + e^{-x} - 2}{1 - \cos x} \underset{0}{\rightsquigarrow} : \frac{(1 - \cos x)^2}{4x + 3x^2 + 1} \underset{0}{\rightsquigarrow} : \frac{\tan x - \sin x}{x(1 - \cos x)} \underset{0}{\rightsquigarrow}$$

$$x \log^{1-x} \log \underset{1-}{\rightsquigarrow}$$

$$\frac{\log x}{\tan x} \underset{\infty}{\rightsquigarrow} : \sqrt{x+1} - \sqrt{x} \underset{\infty}{\rightsquigarrow} : \frac{x^2 + 5x + 16}{4x^2 - 7} \underset{\infty}{\rightsquigarrow} \text{ horiz asymp}$$

$$\frac{x^{1+x} \log}{x} \underset{0}{\rightsquigarrow} : \frac{x^{1+x+x^2} \log - x}{x^2} \underset{0}{\rightsquigarrow}$$

$$\frac{x^2 - 3x - 10}{x + 2} \underset{-2}{\rightsquigarrow} : \frac{x + 1}{x^3} \underset{0+}{\rightsquigarrow} : \frac{x + 1}{x^3} \underset{0-}{\rightsquigarrow} \text{ vert asymp}$$

$$\frac{1}{\sin x} - \frac{1}{x} \underset{0}{\rightsquigarrow} : x^2 e^{-x} \underset{\infty}{\rightsquigarrow} : n \tan \frac{1}{n} \underset{\infty}{\rightsquigarrow} : \frac{x^{-9} \log}{x - 10} \underset{10}{\rightsquigarrow} : \frac{2x - \sin \pi x}{4x^2 - 1} \underset{1/2}{\rightsquigarrow}$$

$$x^x \underset{0+}{\rightsquigarrow} : x^x \underset{\infty}{\rightsquigarrow}$$

$$\frac{\sqrt{x} - 1}{\sqrt{x} - 1} \underset{1+}{\rightsquigarrow} : \frac{\log x}{1 - x} \underset{1\pm}{\rightsquigarrow} : x(e^{1/x} - 1) \underset{\infty}{\rightsquigarrow}$$

$$? \text{ex } \cos \frac{1}{x} \underset{0}{\rightsquigarrow}$$