

FORMULA LIST

$$\cos^{-1} x = \begin{cases} \tan^{-1} \frac{\sqrt{1-x^2}}{x}, & x \geq 0 \\ \pi + \tan^{-1} \frac{\sqrt{1-x^2}}{x}, & x < 0 \end{cases}$$

$$\tan^{-1} x = \begin{cases} \cos^{-1} \frac{1}{\sqrt{1+x^2}}, & x \geq 0 \\ -\pi + \cos^{-1} \left(\frac{-1}{\sqrt{1+x^2}} \right), & x < 0 \end{cases}$$

$$\tan(x-y) = \frac{\tan x - \tan y}{1 + \tan x \tan y}$$