<u>Formulaire de trigonométrie</u>

p,q,a,b,t peuvent être remplacé par une fonction, x ou une constante

$$\sec t = \frac{1}{\cos t}$$

$$\operatorname{cosec} t = \frac{1}{\sin t}$$

$$\operatorname{cotg} t = \frac{1}{\operatorname{tg} t} \quad \operatorname{tg} t$$

$$1 = \sin^2 t + \cos^2 t$$

$$\sin^2 t = 1 - \cos^2 t$$

$$\cos^2 t = 1 - \sin^2 t$$

$$\frac{1}{\cos^2 t} = 1 + \operatorname{tg}^2 t$$

$$\frac{1}{\sin^2 t} = 1 + \operatorname{tg}^2 t$$

$$\sin p + \sin q = 2 \sin \frac{p+q}{2} \cos \frac{p-q}{2}$$

$$\sin p - \sin q = 2 \sin \frac{p-q}{2} \cos \frac{p+q}{2}$$

$$\cos p + \cos q = 2 \cos \frac{p+q}{2} \cos \frac{p-q}{2}$$

$$\sin p + \sin q = 2 \sin \frac{p+q}{2} \sin \frac{p-q}{2}$$

$$\operatorname{tg} p + \operatorname{tg} q = \frac{\sin(p+q)}{\cos p * \cos q}$$

$$\operatorname{tg} p - \operatorname{tg} q = \frac{\sin(p-q)}{\cos p * \cos q}$$

$$\cos a \cos b = \frac{1}{2} [\cos (a+b) + \cos (a-b)]$$

$$\sin a \cos b = \frac{1}{2} [\cos (a-b) - \cos (a+b)]$$

$$\sin a \sin b = \frac{1}{2} [\sin (a+b) + \sin (a-b)]$$

$$\sin^2 a = \frac{1}{2} (1 - \cos 2a)$$

$$\cos^2 a = \frac{1}{2} (1 + \cos 2a)$$

$$\sin a * \cos a = \frac{1}{2} \sin 2a$$

$$\cos (a+b) = \cos a \cos b - \sin a \sin b$$

$$\cos (a-b) = \cos a \cos b + \sin a \sin b$$

$$\sin (a+b) = \sin a \cos b + \sin b \cos a$$

$$\sin (a-b) = \sin a \cos b - \sin b \cos a$$

$$\operatorname{tg} (a+b) = \frac{\operatorname{tg} a + \operatorname{tg} b}{1 - \operatorname{tg} a \operatorname{tg} b}$$

$$\operatorname{tg} (a-b) = \frac{\operatorname{tg} a - \operatorname{tg} b}{1 + \operatorname{tg} a \operatorname{tg} b}$$

$$\sin 2a = 2 \sin a \cos a$$

$$\cos 2a = \cos^2 a - \sin^2 a$$

$$\operatorname{tg} 2a = \frac{2 \operatorname{tg} a}{1 - \operatorname{tg}^2 a}$$