



$$\sin(A+B) = \sin A \cos B + \cos A \sin B$$

$$\cos(A+B) = \cos A \cos B - \sin A \sin B$$

$$\tan(A+B) = \frac{\sin A \cos B + \cos A \sin B}{\cos A \cos B - \sin A \sin B}$$

$$= \frac{\tan A + \tan B}{1 - \tan A \tan B}$$

$$\begin{aligned}
 \sin 15^\circ &= \sin(45^\circ - 30^\circ) \\
 &= \sin 45^\circ \cos 30^\circ - \cos 45^\circ \sin 30^\circ \\
 &= \frac{\sqrt{2}}{2} \cdot \frac{\sqrt{3}}{2} - \frac{\sqrt{2}}{2} \cdot \frac{1}{2} \\
 &= \frac{\sqrt{6} - \sqrt{2}}{4}
 \end{aligned}$$

	0	15	30	45	60	75	90
sin	0	$\frac{\sqrt{6}-\sqrt{2}}{4}$	$\frac{1}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{3}}{2}$	$\frac{\sqrt{6}+\sqrt{2}}{4}$	1
cos	1	$\frac{\sqrt{6}+\sqrt{2}}{4}$	$\frac{\sqrt{3}}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{1}{2}$	$\frac{\sqrt{6}-\sqrt{2}}{4}$	0
tan	0	$2-\sqrt{3}$	$\frac{\sqrt{3}}{3}$	1	$\sqrt{3}$	$2+\sqrt{3}$	und

$$\begin{aligned}
 8. \cos \frac{17\pi}{12} &= \cos\left(\frac{2\pi}{3} + \frac{3\pi}{4}\right) \\
 &= \cos \frac{2\pi}{3} \cos \frac{3\pi}{4} - \sin \frac{2\pi}{3} \sin \frac{3\pi}{4} \\
 &= \left(+\cos \frac{\pi}{3}\right)\left(\cos \frac{\pi}{4}\right) - \sin \frac{\pi}{3} \sin \frac{\pi}{4} \\
 &= \left(\frac{1}{2}\right)\left(\frac{\sqrt{2}}{2}\right) - \frac{\sqrt{3}}{2}\left(\frac{\sqrt{2}}{2}\right) = \frac{\sqrt{2}-\sqrt{6}}{4}
 \end{aligned}$$

$$\begin{aligned}
 8. \cos \frac{17\pi}{12} &= \cos 255^\circ = -\cos 75^\circ \\
 &= -\left(\frac{\sqrt{6}-\sqrt{2}}{4}\right) = \frac{\sqrt{2}-\sqrt{6}}{4}
 \end{aligned}$$