

Information Sheet

➤ $\sin^2 \theta + \cos^2 \theta = 1$

➤ $1 + \tan^2 \theta = \sec^2 \theta$

➤ $1 + \cot^2 \theta = \csc^2 \theta$

➤ $\sin(\alpha + \beta) = \sin \alpha \cos \beta + \sin \beta \cos \alpha$

➤ $\sin(\alpha - \beta) = \sin \alpha \cos \beta - \sin \beta \cos \alpha$

➤ $\cos(\alpha + \beta) = \cos \alpha \cos \beta - \sin \alpha \sin \beta$

➤ $\cos(\alpha - \beta) = \cos \alpha \cos \beta + \sin \alpha \sin \beta$

➤ $\sin 2\alpha = 2 \sin \alpha \cos \alpha$

➤ $\cos 2\alpha = \cos^2 \alpha - \sin^2 \alpha$

➤ $\cos 2\alpha = 2 \cos^2 \alpha - 1$

➤ $\cos 2\alpha = 1 - 2 \sin^2 \alpha$

If $y = \arcsin x$, then $-\frac{\pi}{2} \leq y \leq \frac{\pi}{2}$.

If $y = \arccos x$, then $0 \leq y \leq \pi$.

If $y = \arctan x$, then $-\frac{\pi}{2} \leq y \leq \frac{\pi}{2}$.