12.使用到合角公式.和差化積公式.2 倍角公式

$\sin(\alpha \pm \beta) = \sin \alpha \cos \beta \pm \cos \alpha \sin \beta$

$\cos \alpha - \cos \beta = -2 \sin \frac{1}{2}(\alpha + \beta) \sin \frac{1}{2}(\alpha - \beta)$

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

$\begin{cases} \sin \alpha + \cos \beta = a \\ \cos \alpha + \sin \beta = b \end{cases}$

平方相加

$2 + 2\sin(\alpha + \beta) = a^2 + b^2$

平方相減

$\cos 2\beta - \cos 2\alpha + 2\sin(\alpha - \beta) = a^2 - b^2$

$-2\sin(\beta + \alpha)\sin[-(\alpha - \beta)] + 2\sin(\alpha - \beta) = a^2 - b^2$

$[2 + 2\sin(\alpha + \beta)]\sin(\alpha - \beta) = a^2 - b^2$

$[a^2 + b^2]\sin(\alpha - \beta) = a^2 - b^2$

$\sin(\alpha - \beta) = \dfrac{a^2 - b^2}{a^2 + b^2}$