

$$\Rightarrow \sin 2\theta = 2 \sin \theta \cos \theta ?$$

(video + formulas)

$$\begin{cases} \sin \alpha = \frac{A}{C} = \cos \beta \\ \cos \alpha = \frac{B}{C} = \sin \beta \end{cases}$$

$$\begin{cases} \frac{1}{C} = \frac{\sin \alpha}{A} \\ \frac{1}{C} = \frac{\cos \alpha}{B} \end{cases}$$

$$\frac{\sin \beta}{C} = \frac{\sin(2\alpha)}{2A}$$

$$\Rightarrow \sin(2\alpha) = \frac{1}{C} \cdot 2A \cdot \sin \beta$$

$$\underbrace{\sin \alpha}_{\frac{1}{A}} \quad \underbrace{\cos \alpha}$$

$$\sin(2\alpha) = \frac{\sin \alpha}{\cancel{A}} \cdot \cancel{2A} \cdot \cos \alpha$$

$$\sin(2\alpha) = 2 \sin \alpha \cos \alpha$$

