

NAME: _____ Score _____/10

Please **print** your name

Reference:

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

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

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

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

1. Prove $\cos^4 \beta - \sin^4 \beta = \cos 2\beta$

2. Prove $\sec \beta - \sin \beta \tan \beta = \cos \beta$