Warmup 5: Verify

$$1-\tan^2 x = \frac{\cos(2x)}{\cos^2 x}$$

$1 - \frac{\sin^2 x}{\cos^2 x}$

$\frac{\cos^2 x}{\cos^2 x} - \frac{\sin^2 x}{\cos^2 x}$

$\frac{\cos^2 x - \sin^2 x}{\cos^2 x}$

$\boxed{\frac{\cos(2x)}{\cos^2 x}}$ ✓

OR

$\frac{1-2\sin^2 x}{\cos^2 x}$

$\frac{1}{\cos^2 x} - \frac{2\sin^2 x}{\cos^2 x}$

$\sec^2 x - 2\tan^2 x$

$1+\tan^2 x - 2\tan^2 x$

$\boxed{1-\tan^2 x}$ ✓