

More Verifying Identities (with some Even/Odd & Co-Functions)

1. $\sec^6 x(\sec x \tan x) - \sec^4 x(\sec x \tan x) = \sec^5 x \tan^3 x$

2. $\tan\left(\frac{\pi}{2} - x\right) \sec x = \csc x$

3. $\frac{1 + \csc(-\theta)}{\cos(-\theta) + \cot(-\theta)} = \sec \theta$

4. $\csc x(\csc x - \sin x) + \frac{\sin x - \cos x}{\sin x} + \cot x = \csc^2 x$

5. $4 \tan^4 x + \tan^2 x - 3 = \sec^2 x(4 \tan^2 x - 3)$

6. $\sin x(1 - 2 \cos^2 x + \cos^4 x) = \sin^5 x$

7. $\csc^4 \theta - \cot^4 \theta = 2 \csc^2 \theta - 1$

8. $\frac{\cot \theta}{\csc \theta - 1} = \frac{\csc \theta + 1}{\cot \theta}$

9. $\frac{\sin^3 x + \cos^3 x}{\sin x + \cos x} = 1 - \sin x \cos x$