

Sometimes Trig happens...

Simplify the following expressions.

1. $\cos \theta \tan^2 \theta + \cos \theta$

2. $\frac{\cos \theta}{\sec \theta + \tan \theta}$

3. $(\csc \theta - \cot \theta)^2$

4. $\tan \theta + \cot \theta - \sec \theta \csc \theta$

5. $\frac{\sin \theta + \cos \theta}{\sin \theta} - \frac{\cos \theta - \sin \theta}{\cos \theta}$

6. $\frac{1 + \sin \theta}{1 - \sin \theta} - \frac{1 - \sin \theta}{1 + \sin \theta}$

7. $(\tan \theta + \cot \theta)^2$