1) Prove : $(1 - \cos^2 \theta) \csc^2 \theta = 1$

2) Prove : $\sec \theta \sqrt{(1 - \sin^2 \theta)} = 1$

3) Prove : $\tan \theta \sin \theta + \cos \theta = \sec \theta$

4) Prove : $(1 - \cos \theta)(1 + \cos \theta)(1 + \cot^2 \theta) = 1$

5) Prove : $\cot \theta + \tan \theta = \sec \theta \csc \theta$

6) Prove : $\cos \theta/(1 - \tan \theta) + \sin \theta/(1 - \cot \theta) = \sin \theta + \cos \theta$

7) Prove : $\tan^4 \theta + \tan^2 \theta = \sec^4 \theta - \sec^2 \theta$

8) Prove : $\sqrt{\{(\sec \theta - 1)/(\sec \theta + 1)\}} = \operatorname{cosec} \theta - \cot \theta$.

9) Prove : $(1 - \sin A)/(1 + \sin A) = (\sec A - \tan A)^2$

10) Prove :

$(\tan \theta + \sec \theta - 1)/(\tan \theta - \sec \theta + 1) = (1 + \sin \theta)/\cos \theta$