The Weekly Rigor

Verifying Trigonometric Identities with Simple Arguments Involving the Product of Two Trigonometric Functions: Problems with Solutions
(Part 7)

27. $\tan \theta \cdot \sec \theta = \dfrac{\cos \theta \cdot \tan \theta}{1 - \cos^2 \theta \cdot \tan^2 \theta}.$

28. $\cot \theta \cdot \csc \theta = \dfrac{\sin \theta \cdot \cot \theta}{1 - \sin^2 \theta \cdot \cot^2 \theta}.$

29. $\sin\theta \cdot \tan\theta = \tan\theta \cdot \csc\theta - \sin\theta \cdot \cot\theta$.

30. $\cos\theta \cdot \cot\theta = \cot\theta \cdot \sec\theta - \cos\theta \cdot \tan\theta$.