

The Weekly Rigor

No. 377

“A mathematician is a machine for turning coffee into theorems.”

September 11, 2021

Verifying Trigonometric Identities with Simple Arguments Involving the Product of Three Trigonometric Functions: Problems with Solutions (Part 2)

PROBLEMS

1. $\sin \theta \cdot \sin \theta \cdot \csc \theta = \sin \theta.$

2. $\cos \theta \cdot \cos \theta \cdot \sec \theta = \cos \theta.$

3. $\sin \theta \cdot \cos \theta \cdot \sec \theta = \sin \theta.$

4. $\cos \theta \cdot \sin \theta \cdot \csc \theta.$

5. $\sin \theta \cdot \tan \theta \cdot \csc \theta = \tan \theta.$

6. $\cos \theta \cdot \cot \theta \cdot \sec \theta = \cot \theta.$

7. $\sin \theta \cdot \tan \theta \cdot \cot \theta = \sin \theta.$

8. $\cos \theta \cdot \cot \theta \cdot \tan \theta = \cos \theta.$

“Only he who never plays, never loses.”

Written and published every Saturday by Richard Shedenhelm

WeeklyRigor@gmail.com