

The Weekly Rigor

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

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

PROBLEMS

Verify the following trigonometric identities.

1. $\sin \theta \cdot \sec \theta = \tan \theta.$

2. $\cos \theta \cdot \csc \theta = \cot \theta.$

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

4. $\cos \theta \cdot \tan \theta = \sin \theta.$

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

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

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

8. $\cos \theta \cdot \sec \theta = 1.$

“Only he who never plays, never loses.”

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