

# 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 Three Trigonometric Functions: Problems with Solutions** (Part 16)

65.  $\tan^2 \theta \cdot \cot \theta = \csc \theta \cdot \sec \theta - \cot \theta.$

66.  $\cot^2 \theta \cdot \tan \theta = \sec \theta \cdot \csc \theta - \tan \theta.$

$$67. \sec^2 \theta \cdot \sin \theta = \frac{\sin \theta}{1 - \sin^2 \theta}.$$

$$68. \csc^2 \theta \cdot \cos \theta = \frac{\cos \theta}{1 - \cos^2 \theta}.$$

“Only he who never plays, never loses.”

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