The Weekly Rigor

No. 390

"A mathematician is a machine for turning coffee into theorems."

December 11, 2021

Verifying Trigonometric Identities with Simple Arguments Involving the Product of Three Trigonometric Functions: Problems with Solutions (Part 15)

61. $\tan^2 \theta \cdot \sec \theta = \sec^3 \theta - \sec \theta$.

62.
$$\cot^2 \theta \cdot \csc \theta = \csc^3 \theta - \csc \theta$$
.

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

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