The Weekly Rigor

No. 386

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

November 13, 2021

Verifying Trigonometric Identities with Simple Arguments Involving the Product of Three Trigonometric Functions: Problems with Solutions (Part 11)

45. $\sec^3 \theta = \sec \theta + \sec \theta \cdot \tan^2 \theta$.

46. $\csc^3 \theta = \csc \theta + \csc \theta \cdot \cot^2 \theta$.

47. $\sin^2 \theta \cdot \cos \theta = \cos \theta - \cos^3 \theta$.

48. $\cos^2 \theta \cdot \sin \theta = \sin \theta - \sin^3 \theta$.