

5.2 Verifying Trigonometric Identities

Name:

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P 9. Verify

$$\tan t \cot t = 1$$

P 14. Verify

$$\cos^2 \beta - \sin^2 \beta = 2 \cos^2 \beta - 1$$

P 19. Verify

$$\frac{\cot^2 t}{\csc t} = \frac{1 - \sin^2 t}{\sin t}$$

P 31. Verify

$$\frac{1}{\cos x + 1} + \frac{1}{\cos x - 1} = -2 \csc x \cot x$$

P 33. Verify

$$\tan\left(\frac{\pi}{2} - \theta\right) \tan \theta = 1$$

P 37. Verify

$$(1 + \sin y)[1 + \sin(-y)] = \cos^2 y.$$