Name

Trigonometry Identities - Pythagorean Ratio Cancellation (with Identity, Double identity)

1

Using:
$\sec^2(\gamma) = 1 + \tan^2(\gamma)$
$\cos^2(\gamma) + \sin^2(\gamma) = 1$
—
Simplify:
$(\sec^2(\gamma) - 1)(1 - \sin^2(\gamma))$

Simplify this expression using trig identities

A $\sin^2(\gamma)$	B $\tan^2(\gamma)$
C $\cot^2(\gamma)$	

2

Using:
$\sec^2(\beta) = 1 + \tan^2(\beta)$
$\cos^2(\beta) + \sin^2(\beta) = 1$
—
Simplify:
$(\sec^2(\beta) - 1)(1 - \sin^2(\beta))$

Simplify this expression using trig identities

A $\sin^2(\beta)$	B $\tan^2(\beta)$
C $\sec^2(\beta)$	

3

Using:
$\cos^2(\gamma) + \sin^2(\gamma) = 1$
$\sec^2(\gamma) = 1 + \tan^2(\gamma)$
—
Simplify:
$\dfrac{1 - \cos^2(\gamma)}{\sec^2(\gamma) - 1}$

Simplify this expression using trig identities

A $\cot^2(\gamma)$	B $\cos^2(\gamma)$
C $\tan^2(\gamma)$	

4

Using:
$\csc^2(\theta) = 1 + \cot^2(\theta)$
$\cos^2(\theta) + \sin^2(\theta) = 1$
—
Simplify:
$\dfrac{\csc^2(\theta) - 1}{1 - \sin^2(\theta)}$

Simplify this expression using trig identities

A $\csc^2(\theta)$	B $\sin^2(\theta)$

5

Using:
$\csc^2(\alpha) = 1 + \cot^2(\alpha)$
$\cos^2(\alpha) + \sin^2(\alpha) = 1$
—
Simplify:
$(\csc^2(\alpha) - 1)(1 - \cos^2(\alpha))$

Simplify this expression using trig identities

A $\sec^2(\alpha)$	B $\cot^2(\alpha)$
C $\cos^2(\alpha)$	

6

Using:
$\csc^2(\beta) = 1 + \cot^2(\beta)$
$\cos^2(\beta) + \sin^2(\beta) = 1$
—
Simplify:
$(\csc^2(\beta) - 1)(1 - \cos^2(\beta))$

Simplify this expression using trig identities

A $\cot^2(\beta)$	B $\cos^2(\beta)$

7

Using:
$\cos^2(\alpha) + \sin^2(\alpha) = 1$
$\sec^2(\alpha) = 1 + \tan^2(\alpha)$
—
Simplify:
$\dfrac{1 - \cos^2(\alpha)}{\sec^2(\alpha) - 1}$

Simplify this expression using trig identities

A $\cos^2(\alpha)$	B $\csc^2(\alpha)$
C $\cot^2(\alpha)$	

8

Using:
$\csc^2(\theta) = 1 + \cot^2(\theta)$
$\cos^2(\theta) + \sin^2(\theta) = 1$
—
Simplify:
$(\csc^2(\theta) - 1)(1 - \cos^2(\theta))$

Simplify this expression using trig identities

A $\cot^2(\theta)$	B $\cos^2(\theta)$