



Trigonometry Identities - Pythagorean Ratio Cancellation (without Identity, Double Identity)

1 Simplify this expression using trig identities

$$\frac{\csc^2(\gamma) - 1}{1 - \sin^2(\gamma)}$$

$$\sec^2(\gamma) \cos^2(\gamma) \csc^2(\gamma)$$

2 Simplify this expression using trig identities

$$(1 - \cos^2(\theta))(csc^2(\theta) - 1)$$

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

3 Simplify this expression using trig identities

$$\frac{1 - \cos^2(\alpha)}{\sec^2(\alpha) - 1}$$

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

4 Simplify this expression using trig identities

$$\frac{\sec^2(\gamma) - 1}{1 - \cos^2(\gamma)}$$

A	B	C
$\cot^2(\gamma)$	$\csc^2(\gamma)$	$\sec^2(\gamma)$

5 Simplify this expression using trig identities

$$(csc^2(\gamma) - 1)(1 - \cos^2(\gamma))$$

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

6 Simplify this expression using trig identities

$$(\sec^2(\alpha) - 1)(1 - \sin^2(\alpha))$$

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

7 Simplify this expression using trig identities

$$\frac{\sec^2(\beta) - 1}{1 - \cos^2(\beta)}$$

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

8 Simplify this expression using trig identities

$$(1 - \cos^2(\alpha))(csc^2(\alpha) - 1)$$

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