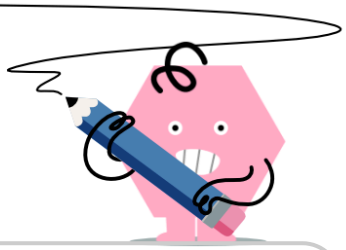
Name



Trigonometry Identities - Pythagorean Problem Cot to Csc (with Identity, Quadrant as Degrees)

1

Using:
$\cot^2(\gamma) = \csc^2(\gamma) - 1$
$180^\circ < \gamma < 270^\circ$

Solve for cosecant from cotangent using trig identities

Solve:
$\cot(\gamma) = 17$
$\csc(\gamma) = ?$

A	B
$\csc(\gamma) = -\sqrt{290}$	$\csc(\gamma) = -\sqrt{335}$

2

Using:
$\cot^2(\alpha) = \csc^2(\alpha) - 1$
$90^\circ < \alpha < 180^\circ$

Solve for cosecant from cotangent using trig identities

Solve:
$\cot(\alpha) = -10$
$\csc(\alpha) = ?$

A	B
$\csc(\alpha) = \sqrt{101}$	$\csc(\alpha) = -\sqrt{101}$

3

Using:
$\cot^2(\theta) = \csc^2(\theta) - 1$
$270^\circ < \theta < 360^\circ$

Solve for cosecant from cotangent using trig identities

Solve:
$\cot(\theta) = -17$
$\csc(\theta) = ?$

A	B
$\csc(\theta) = -\sqrt{290}$	$\csc(\theta) = -2\sqrt{59}$

4

Using:
$\cot^2(\gamma) = \csc^2(\gamma) - 1$
$270^\circ < \gamma < 360^\circ$

Solve for cosecant from cotangent using trig identities

Solve:
$\cot(\gamma) = -7$
$\csc(\gamma) = ?$

A	B
$\csc(\gamma) = -5\sqrt{2}$	$\csc(\gamma) = -7$

5

Using:
$\cot^2(\beta) = \csc^2(\beta) - 1$
$270^\circ < \beta < 360^\circ$

Solve for cosecant from cotangent using trig identities

Solve:
$\cot(\beta) = -1$
$\csc(\beta) = ?$

A	B
$\csc(\beta) = \sqrt{2}$	$\csc(\beta) = -\sqrt{2}$

6

Using:
$\cot^2(\beta) = \csc^2(\beta) - 1$
$180^\circ < \beta < 270^\circ$

Solve for cosecant from cotangent using trig identities

Solve:
$\cot(\beta) = 19$
$\csc(\beta) = ?$

A	B
$\csc(\beta) = -\sqrt{362}$	$\csc(\beta) = -\sqrt{446}$

7

Using:
$\cot^2(\alpha) = \csc^2(\alpha) - 1$
$0^\circ < \alpha < 90^\circ$

Solve for cosecant from cotangent using trig identities

Solve:
$\cot(\alpha) = 12$
$\csc(\alpha) = ?$

A	B
$\csc(\alpha) = \sqrt{137}$	$\csc(\alpha) = \sqrt{145}$

8

Using:
$\cot^2(\gamma) = \csc^2(\gamma) - 1$
$180^\circ < \gamma < 270^\circ$

Solve for cosecant from cotangent using trig identities

Solve:
$\cot(\gamma) = 6$
$\csc(\gamma) = ?$

A	B
$\csc(\gamma) = -\sqrt{37}$	$\csc(\gamma) = \sqrt{37}$