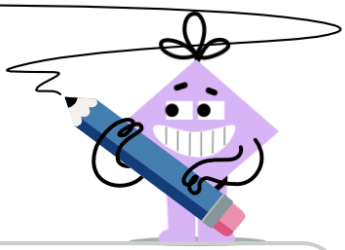
Name



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

1

Using:
$\csc^2(\theta) = \cot^2(\theta) + 1$
$\sec(\theta) \rightarrow$ positive

Solve for cotangent from cosecant using trig identities

Solve:
$\csc(\theta) = 2$
$\cot(\theta) = ?$

A	B
$\cot(\theta) = \sqrt{3}$	$\cot(\theta) = \sqrt{7}$

2

Using:
$\csc^2(\beta) = \cot^2(\beta) + 1$
$\sec(\beta) \rightarrow$ positive

Solve for cotangent from cosecant using trig identities

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

A	B
$\cot(\beta) = -\sqrt{35}$	$\cot(\beta) = \sqrt{35}$

3

Using:
$\csc^2(\gamma) = \cot^2(\gamma) + 1$
$\sec(\gamma) \rightarrow$ negative

Solve for cotangent from cosecant using trig identities

Solve:
$\csc(\gamma) = -3$
$\cot(\gamma) = ?$

A	B
$\cot(\gamma) = 2\sqrt{2}$	$\cot(\gamma) = -2\sqrt{2}$

4

Using:
$\csc^2(\gamma) = \cot^2(\gamma) + 1$
$\sec(\gamma) \rightarrow$ negative

Solve for cotangent from cosecant using trig identities

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

A	B
$\cot(\gamma) = -\sqrt{35}$	$\cot(\gamma) = -2\sqrt{11}$

5

Using:
$\csc^2(\gamma) = \cot^2(\gamma) + 1$
$\sec(\gamma) \rightarrow$ negative

Solve for cotangent from cosecant using trig identities

Solve:
$\csc(\gamma) = -9$
$\cot(\gamma) = ?$

A	B
$\cot(\gamma) = 4\sqrt{5}$	$\cot(\gamma) = \sqrt{66}$

6

Using:
$\csc^2(\beta) = \cot^2(\beta) + 1$
$\sec(\beta) \rightarrow$ positive

Solve for cotangent from cosecant using trig identities

Solve:
$\csc(\beta) = 9$
$\cot(\beta) = ?$

A	B
$\cot(\beta) = -4\sqrt{5}$	$\cot(\beta) = 4\sqrt{5}$

7

Using:
$\csc^2(\alpha) = \cot^2(\alpha) + 1$
$\sec(\alpha) \rightarrow$ negative

Solve for cotangent from cosecant using trig identities

Solve:
$\csc(\alpha) = 5$
$\cot(\alpha) = ?$

A	B
$\cot(\alpha) = -2\sqrt{6}$	$\cot(\alpha) = -\sqrt{30}$

8

Using:
$\csc^2(\gamma) = \cot^2(\gamma) + 1$
$\sec(\gamma) \rightarrow$ positive

Solve for cotangent from cosecant using trig identities

Solve:
$\csc(\gamma) = -3$
$\cot(\gamma) = ?$

A	B
$\cot(\gamma) = -\frac{2\sqrt{2}}{2}$	$\cot(\gamma) = -2\sqrt{2}$