Name

Trigonometry Identities - Pythagorean Problem Cot to Csc (without Identity, Quadrant as Ratio)

1

$\sin(\theta) \rightarrow$ negative

Solve for cosecant from cotangent using trig identities

Solve:
$\cot(\theta) = 8$
$\csc(\theta) = ?$

A	B
$\csc(\theta) = -\frac{\sqrt{65}}{\sqrt{3}}$	$\csc(\theta) = -\sqrt{65}$

2

$\sin(\alpha) \rightarrow$ negative

Solve for cosecant from cotangent using trig identities

Solve:
$\cot(\alpha) = 18$
$\csc(\alpha) = ?$

A	B
$\csc(\alpha) = -\sqrt{265}$	$\csc(\alpha) = -5\sqrt{13}$

3

$\sin(\gamma) \rightarrow$ positive

Solve for cosecant from cotangent using trig identities

Solve:
$\cot(\gamma) = -5$
$\csc(\gamma) = ?$

A	B
$\csc(\gamma) = \sqrt{26}$	$\csc(\gamma) = 2\sqrt{2}$

4

$\sin(\gamma) \rightarrow$ negative

Solve for cosecant from cotangent using trig identities

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

A	B
$\csc(\gamma) = -\sqrt{254}$	$\csc(\gamma) = -\sqrt{290}$

5

$\sin(\theta) \rightarrow$ negative

Solve for cosecant from cotangent using trig identities

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

A	B
$\csc(\theta) = -\sqrt{26}$	$\csc(\theta) = -\sqrt{14}$

6

$\sin(\gamma) \rightarrow$ negative

Solve for cosecant from cotangent using trig identities

Solve:
$\cot(\gamma) = 11$
$\csc(\gamma) = ?$

A	B
$\csc(\gamma) = -\sqrt{130}$	$\csc(\gamma) = -\sqrt{122}$

7

$\sin(\beta) \rightarrow$ negative

Solve for cosecant from cotangent using trig identities

Solve:
$\cot(\beta) = -4$
$\csc(\beta) = ?$

A	B
$\csc(\beta) = -\sqrt{17}$	$\csc(\beta) = -\frac{\sqrt{17}}{3}$

8

$\sin(\gamma) \rightarrow$ positive

Solve for cosecant from cotangent using trig identities

Solve:
$\cot(\gamma) = -19$
$\csc(\gamma) = ?$

A	B
$\csc(\gamma) = \sqrt{362}$	$\csc(\gamma) = \sqrt{290}$