Name _____

1

Using:
$$\tan^2(\gamma) = \sec^2(\gamma) - 1$$
$$\cos(\gamma) \rightarrow \text{negative}$$

Solve for secant from tangent using trig identities

Solve:
$$\tan(\gamma) = -15$$
$$\sec(\gamma) = ?$$

A	B
$\sec(\gamma) = -\sqrt{233}$	$\sec(\gamma) = -\sqrt{226}$

2

Using:
$$\tan^2(\alpha) = \sec^2(\alpha) - 1$$
$$\cos(\alpha) \rightarrow \text{negative}$$

Solve for secant from tangent using trig identities

Solve:
$$\tan(\alpha) = 1$$
$$\sec(\alpha) = ?$$

A	B
$\sec(\alpha) = -\sqrt{2}$	$\sec(\alpha) = -\sqrt{5}$

3

Using:
$$\tan^2(\beta) = \sec^2(\beta) - 1$$
$$\cos(\beta) \rightarrow \text{negative}$$

Solve for secant from tangent using trig identities

Solve:
$$\tan(\beta) = 18$$
$$\sec(\beta) = ?$$

A	B
$\sec(\beta) = -5\sqrt{13}$	$\sec(\beta) = -\dfrac{5\sqrt{13}}{\sqrt{10}}$

4

Using:
$$\tan^2(\theta) = \sec^2(\theta) - 1$$
$$\cos(\theta) \rightarrow \text{positive}$$

Solve for secant from tangent using trig identities

Solve:
$$\tan(\theta) = -16$$
$$\sec(\theta) = ?$$

A	B
$\sec(\theta) = \sqrt{257}$	$\sec(\theta) = -\sqrt{257}$

5

Using:
$$\tan^2(\theta) = \sec^2(\theta) - 1$$
$$\cos(\theta) \rightarrow \text{negative}$$

Solve for secant from tangent using trig identities

Solve:
$$\tan(\theta) = 19$$
$$\sec(\theta) = ?$$

A	B
$\sec(\theta) = \sqrt{362}$	$\sec(\theta) = -\sqrt{362}$

6

Using:
$$\tan^2(\alpha) = \sec^2(\alpha) - 1$$
$$\cos(\alpha) \rightarrow \text{negative}$$

Solve for secant from tangent using trig identities

Solve:
$$\tan(\alpha) = -4$$
$$\sec(\alpha) = ?$$

A	B
$\sec(\alpha) = -\sqrt{19}$	$\sec(\alpha) = -\sqrt{17}$

7

Using:
$$\tan^2(\theta) = \sec^2(\theta) - 1$$
$$\cos(\theta) \rightarrow \text{positive}$$

Solve for secant from tangent using trig identities

Solve:
$$\tan(\theta) = 12$$
$$\sec(\theta) = ?$$

A	B
$\sec(\theta) = \sqrt{145}$	$\sec(\theta) = 11$

8

Using:
$$\tan^2(\beta) = \sec^2(\beta) - 1$$
$$\cos(\beta) \rightarrow \text{positive}$$

Solve for secant from tangent using trig identities

Solve:
$$\tan(\beta) = 19$$
$$\sec(\beta) = ?$$

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

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