

mobius

Trigonometry, Negative Angles Identity (Equations) - Csc/Sec/Cot to Identity



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	What is true about the
	secant of this negative
	angle?

(Degrees)
$$\sim$$
 sec (-30°)

What is true about the cosecant of this negative angle?

$$csc(-150^{\circ})$$

$$\sec(-30^\circ) = \sec(30^\circ)$$

$$^{\hat{}}\mathsf{csc}(-150^{\circ}) = -\mathsf{csc}(150^{\circ})$$

$$sec(-30^\circ) = -sec(30^\circ)$$

$$^{ ilde{ iny b}}\mathsf{csc}(-150^{\circ})=\mathsf{csc}(150^{\circ})$$

$$csc(-45^{\circ})$$

What is true about the cotangent of this negative angle?

$$\cot(-120^{\circ})$$

$$\csc(-45^\circ) = -\csc(45^\circ)$$

$$\hat{c}\cot(-120^\circ)=\cot(120^\circ)$$

$$\csc(-45^{\circ}) = \csc(45^{\circ})$$

$$\mathsf{cot}(-120^\circ) = -\mathsf{cot}(120^\circ)$$

$$\cot(-45^{\circ})$$

What is true about the secant of this negative angle?
$$\sec \left(-120^{\circ}\right)$$

$$\mathsf{cot}(\mathsf{-45}^\circ) = \mathsf{cot}(\mathsf{45}^\circ)$$

$$^{^{\circ}}\mathsf{sec}(-120^{\circ}) = \mathsf{sec}(120^{\circ})$$

$$^{\circ}\cot(-45^{\circ})=-\cot(45^{\circ})$$

$$sec(-120^\circ) = -\mathrm{sec}(120^\circ)$$

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$$csc(-60^{\circ})$$

What is true about the cotangent of this negative angle?

$$\cot(-135^{\circ})$$

$$\csc(-60^\circ) = \csc(60^\circ)$$

$$\hat{c}\mathsf{cot}(-135^\circ) = -\mathsf{cot}(135^\circ)$$

$$\csc(-60^\circ) = -\csc(60^\circ)$$

$$^\circ\mathsf{cot}(-135^\circ) = \mathsf{cot}(135^\circ)$$