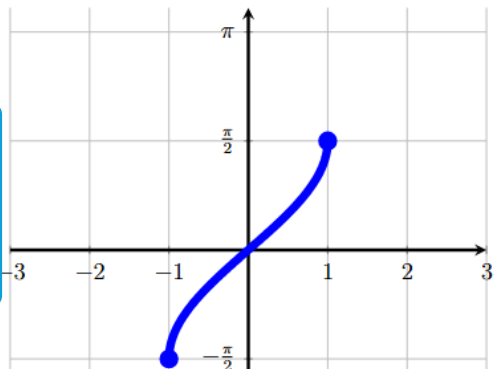## arcsin x

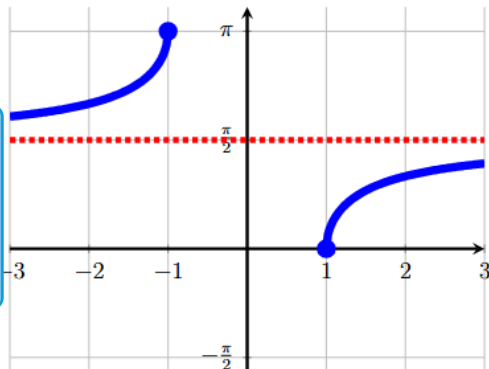arcsin x converts **height** to **angle.**

Increasing

$$|x| \leq 1$$

$$|\arcsin x| \leq \frac{\pi}{2}$$

## arcsec x

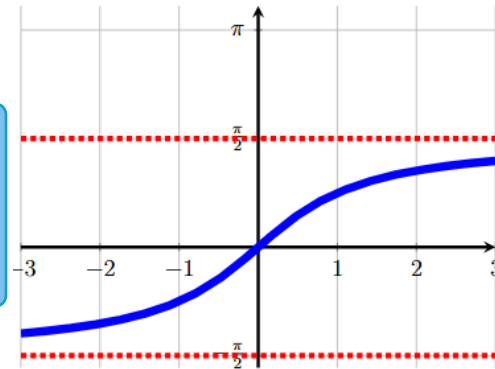arcsec x converts **wall dist** to **angle**

Increasing

$$|x| \geq 1$$

$$0 \leq \text{arcsec } x \leq \pi$$

## arctan x

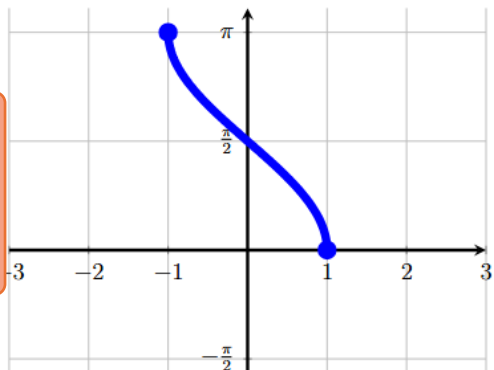arctan x converts **slope** to **angle.**

Increasing

all x are fine!

$$|\arctan x| \leq \frac{\pi}{2}$$
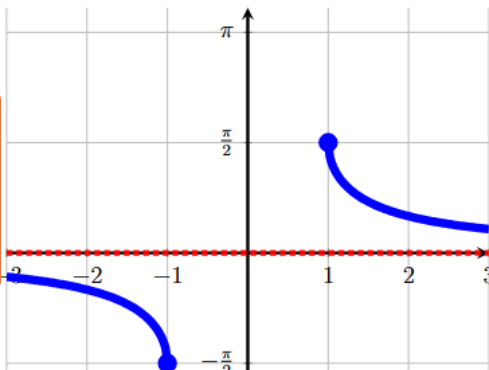
## arccos x

arccos x converts **horiz. pos** to **angle.**

Decreasing

$$|x| \leq 1$$

$$0 \leq \text{arccos } x \leq \pi$$

## arccsc x

arcsec x converts **roof dist** to **angle**
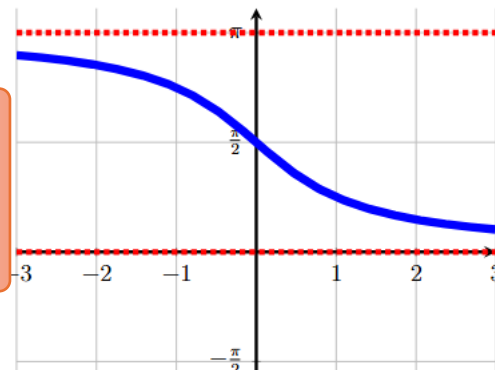
Decreasing

$$|x| \geq 1$$

$$|\text{arccsc } x| \leq \frac{\pi}{2}$$

## arccot x

arccot x converts **slope down** to **angle.**

Decreasing

all x are fine!

$$0 \leq \text{arccot } x \leq \pi$$

# Inverse Trigonometric Functions