

$$\sin \theta = y \quad \arcsin(y) = \theta$$

$$\sin \pi/3 = \sqrt{3}/2 \quad \arcsin \sqrt{3}/2 = \pi/3$$

$$f(f^{-1}(x)) = x \Rightarrow \arcsin(\sin \pi/3) = \pi/3$$

$$\arcsin(\sin 4\pi/3) = -\pi/3$$

$$\theta = \arcsin(x)$$

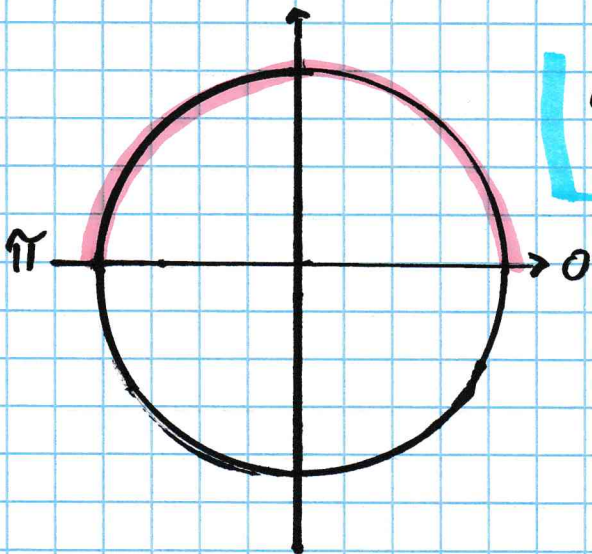
$$\text{Domain: } -1 \leq x \leq 1$$

$$\text{Range: } -\pi/2 \leq \theta \leq \pi/2$$

$$\theta = \arccos(x)$$

$$\text{Domain: } -1 \leq x \leq 1$$

$$\text{Range: } 0 \leq \theta \leq \pi$$



$$\theta = \arctan(x)$$

$$\text{Domain: } -\infty \leq x \leq \infty$$

$$\text{Range: } -\pi/2 < \theta < \pi/2$$

