Now let's work backwards -
Given a trig function and its ratio,
find the angle over the interval $0^{\circ} \leq \theta<360^{\circ}$

$$
\sin \theta=-\frac{1}{\sqrt{2}}
$$

$\cot \theta=-1$
Q II OI
suint is neg in $Q$ III, DIV


$$
180-45=135
$$

$$
360-45=315^{\circ}
$$

$$
\sec \theta=-1
$$

$$
\csc \theta=0
$$

$$
\cos \theta=-1
$$

$\sin \theta=0$
$\theta=0^{\circ}, 180^{\circ}$

Given a trig function and its ratio, find the angle over the interval $0 \leq \theta<2 \pi$
$\cos \theta=-\frac{\sqrt{3}}{2}$
OI II
$R A=\frac{\pi}{6}$

$\sin \theta=0$| $\pi$ | 0 |
| :--- | :--- |
| $(-1,0)$ | $(1,0)$ |

$\theta=0, \pi$
$\frac{5 \pi}{6}, \frac{77}{6}$
$\cot \theta=\frac{1}{\sqrt{3}}$
$\tan \theta=\sqrt{3}$
$Q$ I, 且
$R A \frac{\pi}{3}$
$\tan \theta=1$
QI III
RA $\frac{\pi}{4}$
$\frac{\pi}{4}, \frac{5 \pi}{4}$

$$
\frac{\pi}{3}, \frac{4 \pi}{3}
$$

