Target = 0

left   middle   right

[0, 1, 2, 4, 5, 6, 7]   →   [4, 5, 6, 7, 0, 1, 2]

ascending

$7 > 4 \Rightarrow$ left of middle is ascending

$\begin{cases} 4 > 0 \\ 7 > 0 \end{cases} \Rightarrow$ target in right side

left   right

[4, 5, 6, 7, 0, 1, 2]

middle

$1 > 0 \Rightarrow$ left side is ascending

$\begin{cases} 0 >= 0 \\ 0 < 1 \end{cases} \Rightarrow$ target in left side

left, right, mid

[4, 5, 6, 7, 0, 1, 2]

$0 == 0$ ∴ return mid.