

## \* Build Array From Permutation

[5, 0, 1, 2, 3, 4]

4 5 0 1 2 3

34 5 6 13 20 27

29 30 1 8 15 22

$$\leftarrow (a[i] * \text{len}) + i$$

$$\leftarrow \left[ (a[i] \% \text{len}) * \text{len} \right] + i$$

$$\begin{aligned} (4 * 6) + 5 &= 29 \\ (29 \% 6) * 6 + 0 &= 30 \\ 5 * 6 + 0 &= 30 \end{aligned}$$

Can be done using another array or using same ~~space~~ array

⇒ O(1) space