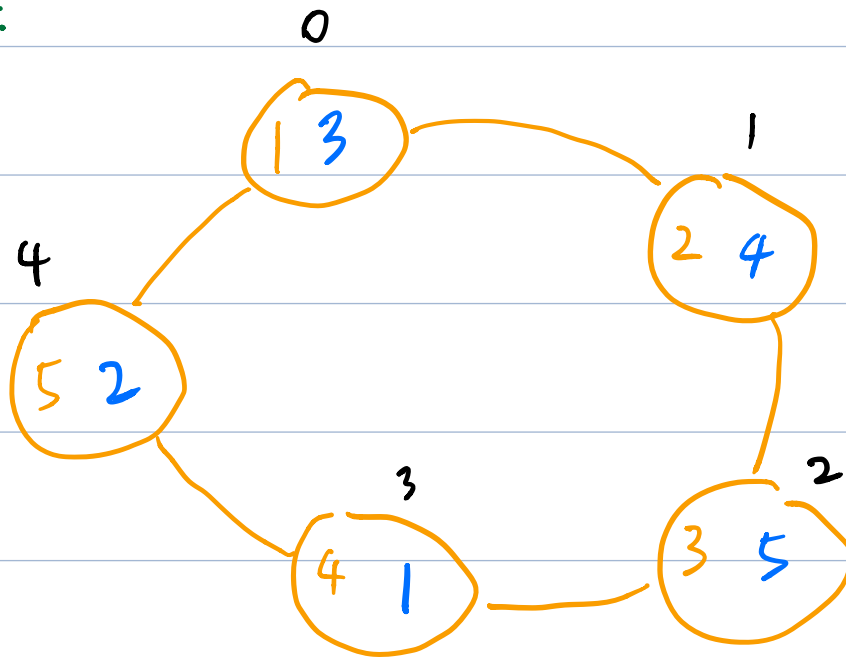


Method 1:



total = 0, start = -1.

$i = 0$:

$$\text{Sum} = 0 + 1 - 3 = -2 \Rightarrow \begin{array}{l} \text{start} = 0 \\ \text{sum} = 0 \end{array}$$

$$\text{total} = 0 + 1 - 3 = -2$$

$i = 1$:

$$\text{sum} = 0 + 2 - 4 = -2 \Rightarrow \begin{array}{l} \text{start} = 1 \\ \text{sum} = 0 \end{array}$$

$$\text{total} = -2 - 2 = -4$$

$i = 2$:

$$\text{sum} = 0 + 3 - 5 = -2 \Rightarrow \begin{array}{l} \text{start} = 2 \\ \text{sum} = 0 \end{array}$$

$$\text{total} = -4 - 2 = -6$$

$i = 3$:

$$\text{sum} = 0 + 4 - 1 = 3$$

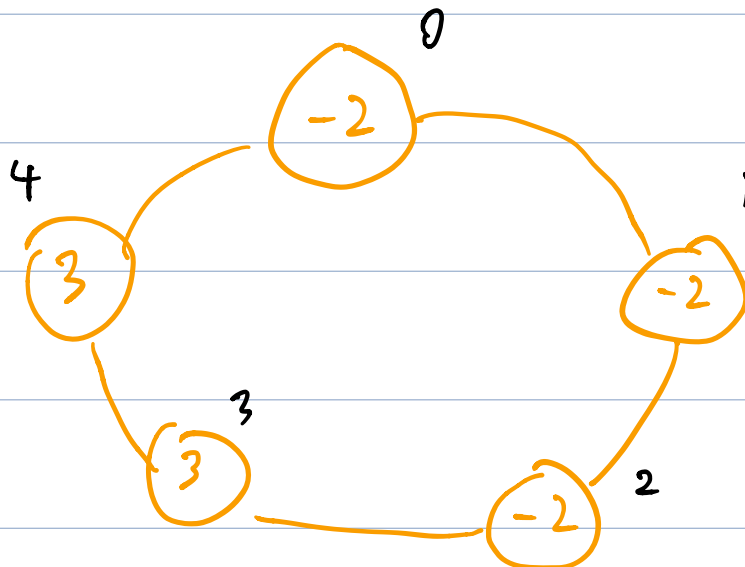
$$\text{total} = -6 + 3 = -3$$

$i = 4$:

$$\text{sum} = 3 + 5 - 2 = 6$$

$$\text{total} = -3 + 5 - 2 = 0 \geq 0 \Rightarrow \text{return } 2 + 1 = 3$$

Method 2:



$$\text{total} = -2 - 2 - 2 + 3 + 3 = 0$$

$$\text{max_so_far}, \text{cur_max} = -2$$

$$\text{min_so_far}, \text{cur_min} = -2$$

$$\text{max_id}, \text{Max_id}, \text{min_id} = 0$$

$i=1$:

$$\text{cur_max} < 0 \Rightarrow \begin{array}{l} \text{cur_max} = -2 \\ \text{max_id} = 1 \end{array}$$

$$\text{cur_min} < 0 \Rightarrow \text{cur_min} = -2 - 2 = -4$$

$$\text{cur_min} < \text{min_so_far} \Rightarrow \begin{array}{l} \text{min_so_far} = -4 \\ \text{min_id} = 1 \end{array}$$

$i=2$:

$$\text{cur_max} < 0 \Rightarrow \begin{array}{l} \text{cur_max} = -2 \\ \text{max_id} = 2 \end{array}$$

$$\text{cur_min} < 0 \Rightarrow \text{cur_min} = -4 - 2 = -6$$

$$\text{cur_min} < \text{min_so_far} \Rightarrow \begin{array}{l} \text{min_so_far} = -6 \\ \text{min_id} = 2 \end{array}$$

$i=3$:

$$\text{cur_max} < 0 \Rightarrow \text{cur_max} = 3$$

$$\text{max_id} = 3$$

$$\text{cur_max} > \text{max_so_far} \Rightarrow \text{max_so_far} = 3$$

$$\text{MAX_id} = 3$$

$$\text{cur_min} = -6 + 3 = -3$$

i=4:

$$\text{cur_max} = 3 + 3 = 6$$

$$\text{cur_max} > \text{max_so_far} \Rightarrow \begin{array}{l} \text{max_so_far} = 6 \\ \text{MAX_id} = 3 \end{array}$$

$$\text{cur_min} = -3 + 3 = 0$$

$$6 > 0 - 0 \Rightarrow \text{result_id} = 3$$
