

$$\text{num} = [5]$$

$$\text{out} = 1$$

$$\text{num} = [1, 2, 3, 4, 5]$$

$$\text{out} = 5$$

$$\text{num} = [2, 2, 2, 2, 2]$$

$$\text{out} = 1$$

$$\text{num} = [5, 4, 3, 2, 1]$$

$$\text{out} = 1$$

$$\text{num} = []$$

$$\text{out} = 0$$

$$\text{num} = [1, 3, 5, 4, 2, 3, 4, 5]$$

$$\text{out} = 4$$