

# 2485. Find the Pivot Integer

## Description

Given a positive integer  $n$ , find the **pivot integer**  $x$  such that:

- The sum of all elements between  $1$  and  $x$  inclusively equals the sum of all elements between  $x$  and  $n$  inclusively.

Return *the pivot integer*  $x$ . If no such integer exists, return  $-1$ . It is guaranteed that there will be at most one pivot index for the given input.

### Example 1:

**Input:**  $n = 8$

**Output:**  $6$

**Explanation:**  $6$  is the pivot integer since:  $1 + 2 + 3 + 4 + 5 + 6 = 6 + 7 + 8 = 21$ .

### Example 2:

**Input:**  $n = 1$

**Output:**  $1$

**Explanation:**  $1$  is the pivot integer since:  $1 = 1$ .

### Example 3:

**Input:**  $n = 4$

**Output:**  $-1$

**Explanation:** It can be proved that no such integer exist.

### Constraints:

- $1 \leq n \leq 1000$

