

# Problem 2481: Minimum Cuts to Divide a Circle

## Problem Information

**Difficulty:** Easy

**Acceptance Rate:** 55.73%

**Paid Only:** No

**Tags:** Math, Geometry

## Problem Description

A **valid cut** in a circle can be:

\* A cut that is represented by a straight line that touches two points on the edge of the circle and passes through its center, or \* A cut that is represented by a straight line that touches one point on the edge of the circle and its center.

Some valid and invalid cuts are shown in the figures below.

 (https://assets.leetcode.com/uploads/2022/10/29/alldrawio.png)

Given the integer  $n$ , return the **minimum** number of cuts needed to divide a circle into  $n$  equal slices.

**Example 1:**

 (https://assets.leetcode.com/uploads/2022/10/24/11drawio.png)

**Input:**  $n = 4$  **Output:** 2 **Explanation:** The above figure shows how cutting the circle twice through the middle divides it into 4 equal slices.

**Example 2:**

 (https://assets.leetcode.com/uploads/2022/10/24/22drawio.png)

**Input:**  $n = 3$  **Output:** 3 **Explanation:** At least 3 cuts are needed to divide the circle into 3 equal slices. It can be shown that less than 3 cuts cannot result in 3 slices of equal size.

and shape. Also note that the first cut will not divide the circle into distinct parts.

**\*\*Constraints:\*\***

**\*`1 <= n <= 100`**

## Code Snippets

### C++:

```
class Solution {  
public:  
    int numberOfCuts(int n) {  
  
    }  
};
```

### Java:

```
class Solution {  
    public int numberOfCuts(int n) {  
  
    }  
}
```

### Python3:

```
class Solution:  
    def numberOfCuts(self, n: int) -> int:
```