Rotate Bits

Basic Accuracy: 15.84% Submissions: 3165 Points: 1

Given an integer **N** and an integer **D**, **rotate the binary representation** of the integer **N by D** digits to the **left** as well as **right** and print the **results** in **decimal values** after each of the rotation.
Note: Integer N is stored using **16 bits**. i.e. 12 will be stored as 0000.....001100.

Example 1:

```
Input:
N = 28, D = 2
Output:
112
7
Explanation: 28 in Binary is:
000...011100
Rotating left by 2 positions, it becomes
00...1110000 = 112 (in decimal).
Rotating right by 2 positions, it becomes
000...000111 = 7 (in decimal).
```

â€‹**Example 2:**

```
Input:
N = 29, D = 2
Output:
116
16391
Explanation: 29 in Binary is:
000...011101
Rotating left by 2 positions, it becomes
00...1110100 = 116 (in decimal).
Rotating right by 2 positions, it becomes
010...000111 = 16391 (in decimal).
```

Your Task:
You don't need to read input or print anything. Your task is to complete the function **rotate()** which takes the integer N and integer D as inputs and returns an array of size 2 where arr[0] = Decimal value after left rotation and arr[1] = Decimal value after right rotation.

Expected Time Complexity: O(1).
Expected Auxiliary Space: O(1).

Constraints:
$1 <= N < 2^{16}$
$1 <= D <= 10^5$

Topic Tags

- Bit Magic
- Strings

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