

191. Number of 1 Bits

Description

Hints

Submissions

Discuss

Solution

Pick One

Write a function that takes an unsigned integer and returns the number of '1' bits it has (also known as the [Hamming weight](#)).

Example 1:

Input: 11

Output: 3

Explanation: Integer 11 has binary representation 00000000000000000000000000001011

Example 2:

Input: 128

Output: 1

Explanation: Integer 128 has binary representation 000000000000000000000000010000000

```
/*
 * 计算一个数转换为二进制后有多少个1，利用n&n-1
 * 二进制数n，然后减一以后，如果最后一位是0，将向
 * 前一位借2，2-1=1。最后一位为1。如果前一位为0，
 * 将继续向前一位借2，加上本身少掉的1，则变为1，。一直遇到1
 * 减为0。
 */
public int hammingWeight(int n) {
    int res = 0;
    while (n != 0) {
        n = n & (n - 1);
        res ++;
    }
    return res;
}
```