461. Hamming Distance

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Total Accepted: **32373** Total Submissions: **45614** Difficulty: **Easy** Contributors: **Samuri** (/samuri/)

Notes

The Hamming distance (https://en.wikipedia.org/wiki/Hamming_distance) between two integers is the number of positions at which the corresponding bits are different.

Given two integers `x` and `y`, calculate the Hamming distance.

Note:

$0 \leq x, y < 2^{31}$.

Example:

```
Input: x = 1, y = 4

Output: 2

Explanation:
1   (0 0 0 1)
4   (0 1 0 0)
      ↑   ↑

The above arrows point to positions where the corresponding bits are different.
```

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C++

```cpp
class Solution {
public:
    int hammingDistance(int x, int y) {
        // int xorVal = x ^ y;
        // int res = 0;
        // for(int i = 0; i < 32; ++i) {
        //     res += xorVal >> i & 1;
        // }
        // return res;
        return __builtin_popcount(x^y);
    }
};
```

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