

Problem 461: Hamming Distance

Problem Information

Difficulty: Easy

Acceptance Rate: 76.42%

Paid Only: No

Tags: Bit Manipulation

Problem Description

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`, return the Hamming distance between them.

Example 1:

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.

Example 2:

Input: `x = 3, y = 1` **Output:** `1`

Constraints:

`0 ≤ x, y ≤ 231 - 1`

Note: This question is the same as [2220: Minimum Bit Flips to Convert Number.](https://leetcode.com/problems/minimum-bit-flips-to-convert-number/description/)

Code Snippets

C++:

```
class Solution {  
public:  
    int hammingDistance(int x, int y) {  
  
    }  
};
```

Java:

```
class Solution {  
    public int hammingDistance(int x, int y) {  
  
    }  
}
```

Python3:

```
class Solution:  
    def hammingDistance(self, x: int, y: int) -> int:
```