

## Hamming Distance (LeetCode461 - Easy)

### Problem Description

The 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.

Example: **input:** x = 1 (0001), y = 4 (0100) => **output:** 2

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

### Problem Analysis

- Use XOR operator.
- Count the number of bits in the result of XOR.

### Solution

```
/**
 * Calculate Hamming Distance.
 * @param x
 * @param y
 * @return Hamming Distance between x and y.
 */
public static int hammingDistance(int x, int y) {
    int xor = x ^ y;
    return Integer.bitCount(xor);
}
```