Like all programmers, Ivancho is very intrigued by the xor bitwise operation. In his attempts to learn more about it, he came across the following problem:

Given an array with N elements and a number K, count the pair of indices i, j

(*1* ≤  *i < j* ≤ *N)*, such that Ai ⊕ Aj = К, where ⊕ is bitwise xor operation.

As usual, you are asked to help Ivancho by solving the task.

**Input**

The first line of the input file xor.in contains two integers **N** and **K** – the number of elements in the array and the integer K.

The second line contains N integers separated by spaces – the elements of the array.

**Output**

On the first line of the output file xor.out print a single integer - the answer to the problem.

**Note: Reading from a file and printing into a file is done by adding an operator for that. You can use the freopen operator by turning on the cstdio library and adding the following two lines to the beginning of your main function: freopen ("xor.in", "r", stdin); freopen ("xor.out", "w", stdout);**

**Constraints**

1 ≤ N ≤ 100 000

0 ≤ K ≤ 100 000

1 ≤ Ai ≤ 100 000

**Time limit: 0.5 sec**

**Memory limit: 256 MB**

**Sample tests**

|  |  |
| --- | --- |
| **Input (xor.in)** | **Output (xor.out)** |
| 3 3  1 2 3 | 1 |
| 6 1  1 4 1 5 3 2 | 2 |

**Clarifications**

In the first sample the only pair is i = 1, j = 2, because 1 ⊕ 2 = 3 = K.

In the second sample the two pairs are i = 2, j = 4 (because 4 ⊕ 5 = 1 = K) and i = 5, j = 6 (because 2 ⊕ 3 = 1 = K), so the answer is 2.

You can read more about bitwise xor operation here:

<https://en.wikipedia.org/wiki/Bitwise_operation#XOR>.