

Number of Beautiful Pairs

You are given a **0-indexed** integer array `nums`. A pair of indices `i, j` where $0 \leq i < j < \text{nums.length}$ is called beautiful if the **first digit** of `nums[i]` and the **last digit** of `nums[j]` are **coprime**.

Return *the total number of beautiful pairs in* `nums`.

Two integers `x` and `y` are **coprime** if there is no integer greater than 1 that divides both of them. In other words, `x` and `y` are coprime if $\text{gcd}(x, y) == 1$, where $\text{gcd}(x, y)$ is the **greatest common divisor** of `x` and `y`.

Example 1:

Input: `nums = [2,5,1,4]`

Output: 5

Explanation: There are 5 beautiful pairs in `nums`:

When `i = 0` and `j = 1`: the first digit of `nums[0]` is 2, and the last digit of `nums[1]` is 5. We can confirm that 2 and 5 are coprime, since $\text{gcd}(2, 5) == 1$.

When `i = 0` and `j = 2`: the first digit of `nums[0]` is 2, and the last digit of `nums[2]` is 1. Indeed, $\text{gcd}(2, 1) == 1$.

When `i = 1` and `j = 2`: the first digit of `nums[1]` is 5, and the last digit of `nums[2]` is 1. Indeed, $\text{gcd}(5, 1) == 1$.

When `i = 1` and `j = 3`: the first digit of `nums[1]` is 5, and the last digit of `nums[3]` is 4. Indeed, $\text{gcd}(5, 4) == 1$.

When `i = 2` and `j = 3`: the first digit of `nums[2]` is 1, and the last digit of `nums[3]` is 4. Indeed, $\text{gcd}(1, 4) == 1$.

Thus, we return 5.

Example 2:

Input: `nums = [11,21,12]`

Output: 2

Explanation: There are 2 beautiful pairs:

When `i = 0` and `j = 1`: the first digit of `nums[0]` is 1, and the last digit of `nums[1]` is 1. Indeed, $\text{gcd}(1, 1) == 1$.

When `i = 0` and `j = 2`: the first digit of `nums[0]` is 1, and the last digit of `nums[2]` is 2. Indeed, $\text{gcd}(1, 2) == 1$.

Thus, we return 2.

Constraints:

- $2 \leq \text{nums.length} \leq 100$
- $1 \leq \text{nums}[i] \leq 9999$
- $\text{nums}[i] \% 10 \neq 0$