# **Count Triplets ★**

Problem

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You are given an array and you need to find number of tripets of indices (i, j, k) such that the elements at those indices are in geometric progression for a given common ratio  $m{r}$  and  $m{i} < m{j} < m{k}$ .

#### Example

$$arr = [1, 4, 16, 64] r = 4$$

There are [1,4,16] and [4,16,64] at indices (0,1,2) and (1,2,3). Return 2.

#### **Function Description**

Complete the countTriplets function in the editor below.

countTriplets has the following parameter(s):

- int arr[n]: an array of integers
- int r: the common ratio

#### Returns

• int: the number of triplets

## Input Format

The first line contains two space-separated integers  $\boldsymbol{n}$  and  $\boldsymbol{r}$ , the size of  $\boldsymbol{arr}$  and the common ratio.

The next line contains n space-seperated integers arr[i]

#### Constraints

- $1 \le n \le 10^5$
- $1 \le r \le 10^9$
- $1 \le arr[i] \le 10^9$

### Sample Input 0

4 2

1 2 2 4

#### Sample Output 0

2

### **Explanation 0**

There are  $oldsymbol{2}$  triplets in satisfying our criteria, whose indices are  $oldsymbol{(0,1,3)}$  and  $oldsymbol{(0,2,3)}$ 

#### Sample Input 1

6 3

1 3 9 9 27 81

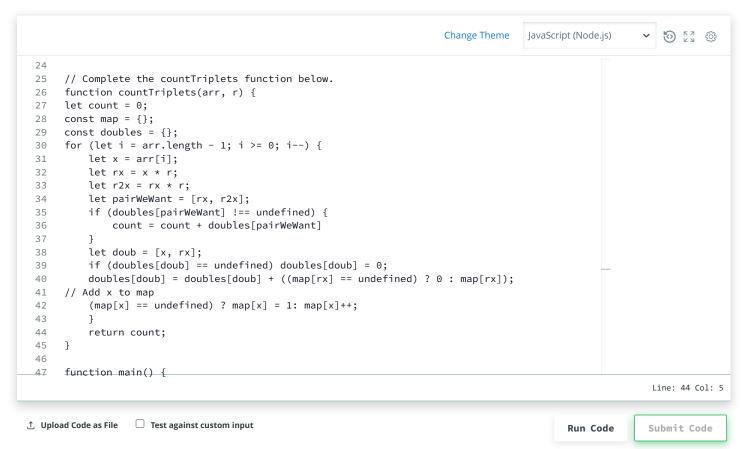
# Sample Output 1

6

## **Explanation 1**

The triplets satisfying are index (0,1,2), (0,1,3), (1,2,4), (1,3,4), (2,4,5) and (3,4,5).

```
Sample Input 2
  5 5
  1 5 5 25 125
Sample Output 2
  4
Explanation 2
The triplets satisfying are index (0,1,3), (0,2,3), (1,3,4), (2,3,4).
```



# Congratulations!

You have passed the sample test cases. Click the submit button to run your code against all the test cases.

```
⊘ Sample Test case 0
                                                                                                                   Download
                               Input (stdin)
                                    4 2
⊗ Sample Test case 1
                                   1 2 2 4
\odot Sample Test case 2
                               Your Output (stdout)
                                    2
```

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