ANNUAL AUBG PROGRAMMING CONTEST
March 21, 2020

Tasks 3. Crossings

Given are two parallel vertical straight lines and *n* straight line segments. For each segment, its first endpoint lies on the first vertical line and its second endpoint lies on the second vertical line. Write program **cross** that calculates how many pairs of segments there are, such that both segments intersect.

Input: On the first row of the standard input, the count *n* of the given segments and the distance *d* between the two given parallel lines are written. It follows *n* rows in the input, each containing the y-coordinates of the first and the second endpoint of the consecutive given segment. All values are integer.

Output: One integer equal to the count of the pairs with intersecting segments.

Constraints: 1 < *n* < 30 000; The coordinates of endpoints are positive integers, less than 1 000 000. No two segments have any common endpoint.

Example. Input

```
5 5
9 9
11 4
1 6
3 12
7 2
```

Output

```
6
```

Explanation: If we give numbers to the segments in the order of their appearance in the input, the pairs with intersecting segments contain the following numbers: (1,2), (1,4), (2,3), (2,4), (3,5), (4,5).