Intersecting Lines

Given N lines in 2-D plane and a range (L, R). You have to output the number of pairs of lines that intersect in the range (L, R) (i.e their X co-ordinate of intersection lies in range (L, R) not including L, R). Since the answer may be large output the answer modulo (10^9+7).

Input:
First line contain three integers N, L and R.
Next N line contain description of lines (i'th line describes i'th line), each line has three integers A, B and C. (Line is A*x + B*y + C = 0).

Output:
Single integer denoting the answer modulo 10^9+7.

Constraints:
0 <= N <= 10^5
-10^8 <= L, R, A, B, C <= 10^8

Time Limit : 1 sec
Memory Limit : 256 MB

Sample Input:
3 0 5
1 -1 0
0 2 -4
0 1 -1

Sample Output:
2