Jump

You have N blocks you need to cross, i.e. reach the N'th block. You are initially on block number 1. Each block has a cost Ci of landing on it.

Another constraint is that your jump distance varies, such that your i'th jump can be at-max of distance Di. Hence if you are at block number x you can jump upto block y on ith jump s.t $x < y \le x+Di$ Find the minimum cost needed to cross.

Input:

First line contains N, the number of blocks. Next N numbers denoting Ci. Next N-1 numbers describing Di.

Output:

Minimum cost

Constraints:

1 <= N <= 2000 1 <= Ci, Di <= 10^9 Time: 1 sec

Sample Input:

5 12345 2222

Sample Output:

9