

# AAP Volunteers

## AAP Volunteers

After AAP's massive victory in Delhi Assembly Elections 2015, AAP Volunteers have decided to clean the streets of delhi by collecting all the pamphlets, caps, campaign material lying here and there and then putting them in the dustbin. There are 'n' different sites each having 1 bag full of these used materials and each bag has a certain value 'Vi' associated with it. A volunteer can travel only a certain distance 'W' at max. Suppose, site 'i' has a bag whose value is 'Vi' and the distance of that site from the dustbin is 'Di' , then the volunteer has to travel  $2 \cdot Di$  distance (from dustbin to that site and from that site to the dustbin) and is thus able to earn 'Vi' points. Your task is to find out the maximum number of points that can be earned by the volunteer under the constraints that he can carry only 1 bag at a time and maximum distance that can be travelled by him is 'W' (in total).

Note: There is only one dustbin.

### Input

First line of input consists of 'T' denoting number of test cases .First line of each test case consists of 'n'- number of sites and 'W'-maximum distance that can be travelled by the volunteer in total. Second line consists of 'n' numbers( D1,D2,...,Dn) where 'Di' denotes the distance of that site from the dustbin and third line consists of 'n' numbers( V1,V2,...Vn) where 'Vi' denotes the value associated with the bag at the 'i'th site.

### Output

Print the desired value on a separate line for each test case.

### Constraints

$$1 \leq T \leq 50$$

$$1 \leq n \leq 10^3$$

$$1 \leq W \leq 10^3$$

$$1 \leq Vi \leq 10^8$$

$$1 \leq Di \leq 10^8$$

### Sample Input

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1
3 10
3 4 1
100 200 300
```

## Sample Output

500