

Input Format

First and only line contains the value of array separated by single space.

	A 0 0	A 0 1	A 0 2
	4	6	9
	A 1 0	A 1 1	A 1 2
	2	5	8
	A 2 0	A 2 1	A 2 2
	1	3	7

Output Format

First line should print sum of A 0 0, A 0 2, A 1 1, A 2 0, A 2 2

Second line should print sum of A 0 1, A 1 0, A 1 2, A 2 1

SAMPLE INPUT

1 2 3 4 5 6 7 8 9

SAMPLE OUTPUT

25

20

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main()
3 {
4     int arr[3][3];
5     for(int i=0; i<3; i++)
6     {
7         for (int j=0; j<3; j++)
8         {
9             scanf("%d",&arr[i][j]);
10        }
11    }
12    int odd=0, even=0;
13    for(int i=0; i<3; i++)
14    {
15        for(int j=0; j<3; j++)
16        {
17            if((i+j)%2!=0)
18                odd+=arr[i][j];
19            else
20                even+=arr[i][j];
21        }
22    }
23    printf("%d\n%d",even,odd);
24 }
```

	Input	Expected	Got	
✓	1 2 3 4 5 6 7 8 9	25 20	25 20	✓
✓	21 422 423 443 586 645 657 846 904	2591 2356	2591 2356	✓

Passed all tests! ✓

The task is to create a list where first all female candidates are sorted in a descending order and then male candidates are sorted in a descending order.

Input Format

The first line contains an integer N denoting the number of students. Next, N lines contain two space-separated integers, ai and bi.

The first integer, ai will be either 1(for a male candidate) or 0(for female candidate).

The second integer, bi will be the candidate's talent level.

Constraints

$1 \leq N \leq 10^5$

$0 \leq a_i \leq 1$

$1 \leq b_i \leq 10^9$

Output Format

Output space-separated integers, which first contains the talent levels of all female candidates sorted in descending order and then the talent levels of male candidates in descending order.

SAMPLE INPUT

5

0 3

1 6

0 2

0 7

1 15

SAMPLE OUTPUT

7 3 2 15 6

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 struct data
3 {
4     int gen;int tal;
5 };
6 int main()
7 {
8     int n;
9     scanf("%d",&n);
10    struct data a[n];
11    for(int i=0; i<n; i++)
12        scanf("%d %d",&a[i].gen,&a[i].tal);
13    for(int i=0; i<n-1; i++)
14    {
15        for(int j=0; j<n-i-1; ++j)
16        {
17            if(a[j].tal<a[j+1].tal)
18            {
19                struct data temp=a[j];
20                a[j]=a[j+1];
21                a[j+1]=temp;
22            }
23        }
24    }
25    for(int i=0; i<n; i++)
26    {
27        if (a[i].gen==0)
28            printf("%d ",a[i].tal);
29    }for (int i=0; i<n; ++i)
30    {
31        if(a[i].gen==1)
32            printf("%d ",a[i].tal);
33    }
34 }
35 }
```

	Input	Expected	Got	
✓	5 0 3 1 6 0 2 0 7 1 15	7 3 2 15 6	7 3 2 15 6	✓
✓	6 0 1 0 26 0 39 0 37 0 7 0 13	39 37 26 13 7 1	39 37 26 13 7 1	✓
✓	12 1 12 1 14 1 18 1 1 1 2 1 3 1 5 1 8 1 9 1 10 0 29 0 31	31 29 18 14 12 10 9 8 5 3 2 1	31 29 18 14 12 10 9 8 5 3 2 1	✓
✓	12 0 12 1 12 0 12 0 12 1 12 0 12 1 12 0 12 1 12 0 12 1 12	12 12 12 12 12 12 12 12 12 12	12 12 12 12 12 12 12 12 12 12	✓

Passed all tests! ✓

To decide the total compensation, he has to calculate the total amount of money to return back to farmers with the same cost they had purchased from him. Suppose, Shyam Lal has a total land area of **1000 x 1000** equal square blocks where each block is equivalent to a unit square area which can be represented on the co-ordinate axis. Now find the total amount of money, he has to return to the farmers. Help Shyam Lal to accomplish this task.

Input Format:

The first line of the input contains an integer **N**, denoting the total number of land pieces he had distributed. Next **N** line contains the **5** space separated integers **(X1, Y1), (X2, Y2)** to represent a rectangular piece of land, and cost per unit area **C**.

**(X1, Y1)** and **(X2, Y2)** are the locations of first and last square block on the diagonal of the rectangular region.

Output Format:

Print the total amount he has to return to farmers to solve the conflict.

Constraints:

$1 \leq N \leq 100$

$1 \leq X1 \leq X2 \leq 1000$

$1 \leq Y1 \leq Y2 \leq 1000$

$1 \leq C \leq 1000$

SAMPLE INPUT

3

1 4 4 6 1

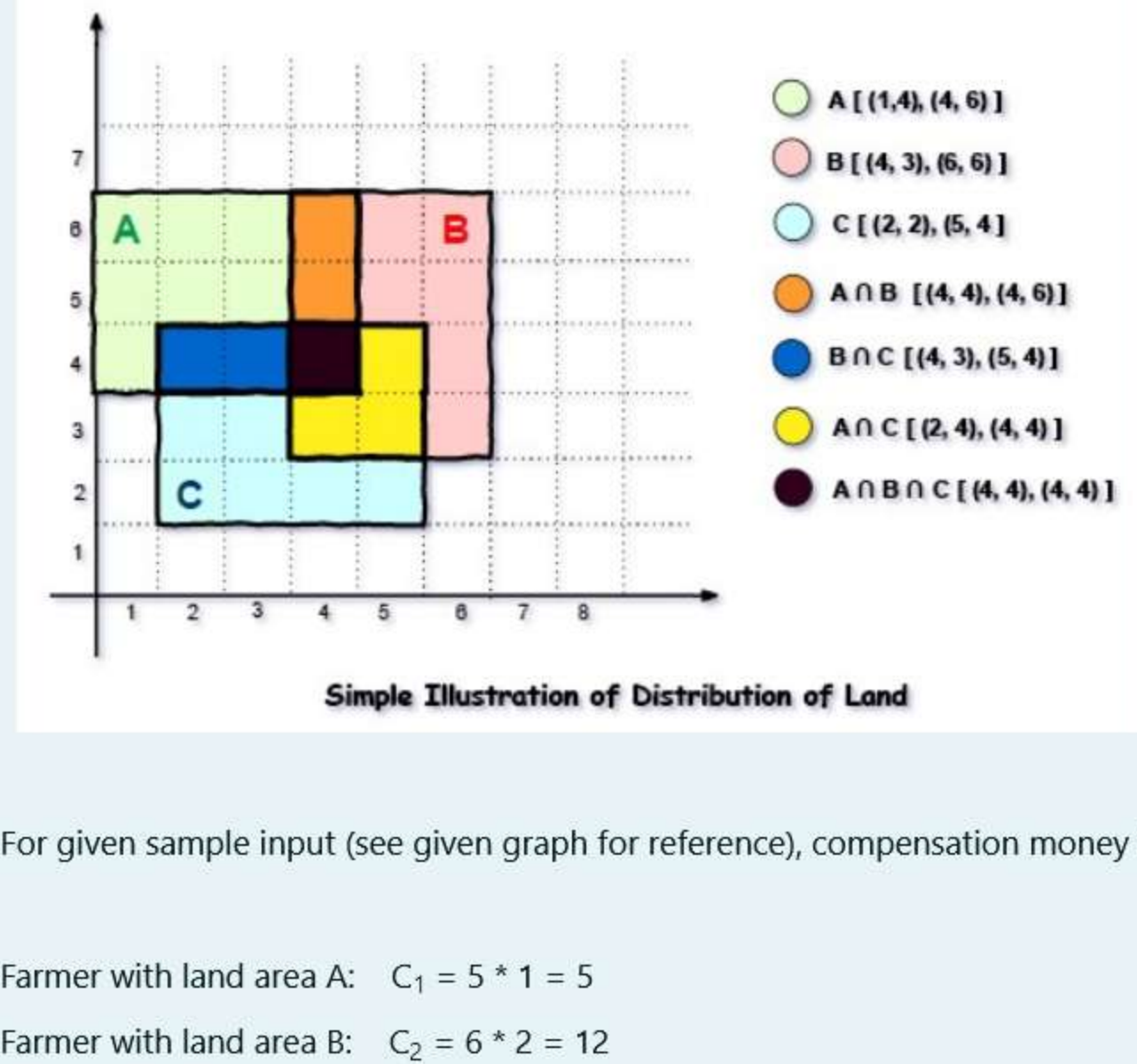
4 3 6 6 2

2 2 5 4 3

SAMPLE OUTPUT

35

Explanation



For given sample input (see given graph for reference), compensation money for different farmers is as follows:

Farmer with land area A:  $C_1 = 5 * 1 = 5$

Farmer with land area B:  $C_2 = 6 * 2 = 12$

Farmer with land area C:  $C_3 = 6 * 3 = 18$

Total Compensation Money =  $C_1 + C_2 + C_3 = 5 + 12 + 18 = 35$

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main()
3 {
4     int i,j,n,x1,x2,y1,y2,t=0;
5     long long total=0;
6     int arr[1001][1001]={0};
7     scanf("%d",&n);
8     while(n-->0)
9     {
10        scanf("%d %d %d %d %d",&x1, &y1, &x2, &y2, &t);
11        for(i=x1; i<=x2; i++)
12        {
13            for(j=y1; j<=y2; j++)
14            {
15                if(arr[i][j]==0)
16                    arr[i][j]=t;
17                else if (arr[i][j]>0)
18                    arr[i][j]=(-1)*(arr[i][j]+t);
19                else if(arr[i][j]<0)
20                    arr[i][j]=t;
21            }
22        }
23    }
24    for(i=1; i<1001; i++)
25    {
26        for(j=1; j<1001; j++)
27        {
28            if (arr[i][j]<0)
29                total+=arr[i][j];
30        }
31    }
32    printf("%lld\n",(-1)*total);
33    return 0;
34 }
```

	Input	Expected	Got	
✓	3 1 4 4 6 1 4 3 6 6 2 2 2 5 4 3	35	35	✓
✓	1 48 12 49 27 8	0	0	✓
✓	3 88 34 99 76 44 82 65 94 100 81 58 16 65 66 7	10500	10500	✓

Passed all tests! ✓