

Answer: (penalty regime: 0 %)

```

1  #include<stdio.h>
2  int main()
3  {
4      int arr[3][3];
5      int sum1 = 0, sum2 = 0;
6      for(int i=0; i<3; i++)
7      {
8          for(int j=0; j<3; j++)
9          {
10             scanf("%d",&arr[i][j]);
11          }
12      }
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              {
19                  sum1 += arr[i][j];
20              }
21              else
22              {
23                  sum2 += arr[i][j];
24              }
25          }
26      }
27      printf("%d",sum1);
28      printf("\n%d",sum2);
29      return 0;
30 }

```

|   | Input             |
|---|-------------------|
| ✓ | 1 2 3 4 5 6 7 8 9 |



```
1 #include<stdio.h>
2 int main()
3 {
4     int arr[3][3];
5     int sum1 = 0, sum2 = 0;
6     for(int i=0; i<3; i++)
7     {
8         for(int j=0; j<3; j++)
9         {
10             scanf("%d",&arr[i][j]);
11         }
12     }
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             {
19                 sum1 += arr[i][j];
20             }
21             else
22             {
23                 sum2 += arr[i][j];
24             }
25         }
26     }
27     printf("%d",sum1);
28     printf("\n%d",sum2);
29     return 0;
30 }
```

**Input**

1 2 3 4 5 6 7 8 9

```
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         {
19             sum1 += arr[i][j];
20         }
21         else
22         {
23             sum2 += arr[i][j];
24         }
25     }
26
27 printf("%d",sum1);
28 printf("\n%d",sum2);
29 return 0;
30
```

|   | Input                          |
|---|--------------------------------|
| ✓ | 1 2 3 4 5 6 7 8 9              |
| ✓ | 21 422 423 443 586 645 657 846 |

Passed all tests! ✓

Question **2**

Correct

Marked out of 5.00

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Answer: (penalty regime: 0 %)

```
1  #include<stdio.h>
2  #include<stdlib.h>
3  typedef struct
4  {
5      int gender;
6      int talent;
7  }
8  Student;
9  int compare_students(const vo
10 {
11     const Student *student_a
12     const Student *student_b
13     if(student_a -> gender <
14     {
15         return -1;
16     }
17     else if(student_a -> gend
18     {
19         return 1;
20     }
21     else
22     {
23         return student_b -> t
24     }
25 }
26 int main()
27 {
28     int N;
29     scanf("%d",&N);
30     Student * students = (Stu
31     for(int i=0; i<N; i++)
32     {
33         scanf("%d %d",&studen
34     }
35     qsort(students,N,sizeof(S
36     for(int i=0; i<N; i++)
37     {
38         printf("%d ",students
39     }
40     printf("\n");
```

**Answer:** (penalty regime: 0 %)

```
1
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8
9 void *a,const void *b)
10
11 _a = (const Student *)a;
12 _b = (const Student *)b;
13 < student_b -> gender)
14
15
16
17 gender > student_b -> gender)
18
19
20
21
22
23 -> talent - student_a -> talen
24
25
26
27
28
29
30 (Student *)malloc (N * sizeof(
31 )
32
33 dents[i].gender,&students[i].
34
35 of(Student),compare_students);
36 )
37
38 ents[i].talent);
39
40
```

```

34     }
35     qsort(students,N,sizeof(S
36     for(int i=0; i<N; i++)
37     {
38         printf("%d ",students
39     }
40     printf("\n");
41     free(students);
42     return 0;
43 }

```

|   | Input   | Expected                  |
|---|---|---------------------------|
| ✓ | 5<br>0 3<br>1 6<br>0 2<br>0 7<br>1 15                         | 7 3 2 15 6                |
| ✓ | 6<br>0 1<br>0 26<br>0 39<br>0 37<br>0 7<br>0 13               | 39 37 26 13 7 1           |
| ✓ | 12<br>1 12<br>1 14<br>1 18<br>1 1<br>1 2<br>1 3<br>1 5<br>1 8 | 31 29 18 14 12 10 9 8 5 3 |



Answer: (penalty regime: 0 %)

```

1  #include<stdio.h>
2  #include<stdlib.h>
3  typedef struct {int x1,y1,x2,y2;}
4  }
5  land;
6  int overlap(land a,land b)
7  {
8      return a.x1 <= b.x2 && b.x1 <= a.x2 && a.y1 <= b.y2 && b.y1 <= a.y2;
9  }
10 int overlap_area(land a,land b)
11 {
12     int x_overlap = (a.x2 > b.x2 ? b.x2 - a.x1 : a.x2 - b.x1);
13     int y_overlap = (a.y2 > b.y2 ? b.y2 - a.y1 : a.y2 - b.y1);
14     return x_overlap * y_overlap;
15 }
16 int main()
17 {
18     int n;
19     scanf("%d",&n);
20     land lands[n];
21     for(int i=0; i<n; i++)
22     {
23         scanf("%d %d %d %d %d",&lands[i].x1,&lands[i].y1,&lands[i].x2,&lands[i].y2);
24     }
25     int total_compensation = 0;
26     for(int i=0; i<n; i++)
27     {
28         for(int j=i+1; j<n; j++)
29         {
30             if(overlap(lands[i],lands[j]))
31             {
32                 int area_overlap = overlap_area(lands[i],lands[j]);
33                 int cost_per_unit_area = 100;
34                 total_compensation += area_overlap * cost_per_unit_area;
35             }
36         }
37     }
38     printf("%d",total_compensation);
39     return 0;
40 }
```



**Answer:** (penalty regime: 0 %)

```
1
2
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4
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6
7
8 & a.y1 <= b.y2 && b.y1 <= a.y2
9
10
11
12 1,b.x1);
13 a.y1,b.y1);
14
15
16
17
18
19
20
21
22
23 x1,&lands[i].y1,&lands[i].x2,&
24
25
26
27
28
29
30 )
31
32 p_area(lands[i],lands[j]);
33 s[i].cost + lands[j].cost) / 2
34 a_overlap * cost_per_unit;
35
36
```