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Q.2 Suppose that a disk drive has 100 cylinders . . . . . moves?

```
#include <stdio.h>
#include <stdio.h>
int main()
{
    int RQ[100], i, j, n, Total head Movement = 0, initial, size, move;
    printf("\nEnter the number of Requests (n):");
    scanf("%d", &n);
    printf("\nEnter the requests sequence (n):");
    for(i = 0; i < n; i++)
        scanf("%d", &RQ[i]);
    printf("\nEnter initial head position (n):");
    scanf("%d", &initial);
    printf("\nEnter total disk size (n):");
    scanf("%d", &size);
    printf("\nEnter the head movement direction for high and low (n):");
    scanf("%d", &move);
    for(i = 0; i < n; i++)
    {
        for(j = 0; j < n - i - 1; j++)
```

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```
{ if (RQ[j] > RQ[j+1])
```

```
{  
    int temp;  
    temp = RQ[j];  
    RQ[j] = RQ[j+1];  
    RQ[j+1] = temp;  
}
```

```
{  
    int index;  
    for (i = 0; i < n; i++)  
    {  
        if (initial < RQ[i])  
        {  
            index = i;  
            break;  
        }  
    }
```

```
{  
    for (i = index; i < n; i++)
```

```
{  
    Total Head Moment = Total Head Moment + abs (RQ[i] - 1);  
    initial = size - 1;  
    for (i = index - 1; i >= 0; i--)
```

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```

{
    Total head movement = Total head movement + abs(RQ[i] - initial);
    initial = RQ[i];
}
}

{
    for (i = index - 1; i >= 0; i--)
    {
        Total head movement = Total head movement + abs(RQ[i] - initial);
        initial = RQ[i];
    }

    Total head movement = Total head movement + abs(RQ[i + 1] - 0);
    initial = 0;
    for (i = index; i < n; i++)
    {
        Total head movement = Total head movement + abs(RQ[i] - initial);
        initial = RQ[i];
    }
}

printf("Total head movement is %.d", Total head movement);
return 0;
}
    
```

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12 26 24 4 42 8 50

Enter initial head position

24

Enter total disk size

100

Enter the head movement direction for high 1 and for low 0

0

Total head movement is 74

-----

Process exited after 394 seconds with return value 0

Press any key to continue . . . .