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CLASS: TE11
BATCH: L11

CODE:

```
#include<stdio.h>
#include<stdlib.h>
int main()
{
    int ReadyQueue[100],i,n,TotalHeadMoment=0,initial,count=0;
    // The number of requests
    scanf("%d",&n);
    //Enter the requests sequence
    for(i=0;i<n;i++)
        scanf("%d",&ReadyQueue[i]);
    //Enter the initial head position
    scanf("%d",&initial);

    while(count!=n)
    {
        int min=1000,diff,index;
        for(i=0;i<n;i++)
        {
            diff=abs(ReadyQueue[i]-initial);
            if(min>diff)
            {
                min=diff;
                index=i;
            }
        }
        TotalHeadMoment=TotalHeadMoment+min;
        initial=ReadyQueue[index];
        ReadyQueue[index]=1000;
        count++;
    }
    printf("Total head movement is %d",TotalHeadMoment);
}
```

OUTPUT:

```
osbox@osboxesorg:~$ gcc os8.1.c
5
34
89
12
31
87
44
Total head movement is 109
```

```
osbox@osboxesorg:~$ ./a.out
```

```
8
```

```
12
```

```
32
```

```
11
```

```
1
```

```
99
```

```
65
```

```
87
```

```
34
```

```
88
```

```
Total head movement is 111
```