```c
2. #include <stdio.h>
int absoluteValue (int);
void main ()
{
    int queue [25], n, headposition, i, j, k, seek = 0, maxrange,
    difference, temp, queue1 [20], queue2 [20], temp1 = 0,
    temp 2 = 0;

    printf ("Enter the maximum range of Disk :");
    scanf ("%d", &maxrange);
    printf ("Enter the number of queue requests :");
    scanf ("%d", &n);
    printf ("Enter the initial head position :");
    scanf ("%d", &headposition);
    printf ("Enter the disk positions to be read (queue):");

    for (i = 1; i <= n; i++)
    {
        scanf ("%d", &temp);
        if (temp > headposition)
        {
            queue1 [temp1] = temp;
            temp1 ++;
        }
        else
        {
            queue2 [temp2] = temp;
            temp2 ++;
        }
    }
```

```c
for (i = 0; i < temp1 - 1; i++)
{
    for (j = i+1; j < temp1; j++)
    {
        if (queue1[i] > queue1[j])
        {
            temp = queue2[i];
            queue2[i] = queue2[j];
            queue2[j] = temp;
        }
    }
}

for (i = 1, j = 0; j < temp1; i++, j++)
{
    queue[i] = queue1[j];
}
queue[i] = max range;
for (i = temp1 + 2, j = 0; j < temp2; i++, j++)
{
    queue[i] = queue2[j];
}
queue[i] = 0;
queue[0] = head position;
for (j = 0; j <= n; j++)
{   difference = absolute Value (queue[j+1] - queue[j]);
    seek = seek + difference;
}
printf (" Total head movement = %d \n", seek);

int absolute Value (int n)
{   if (n > 0)
        return n;
    else
        return n * -1;
}
```

```
 9  #include<stdio.h>
10  int absoluteValue(int);
11  void main()
```

```
Enter the maximum range of Disk: 99
Enter the number of queue requests: 7
Enter the initial head position: 24
Enter the disk positions to be read(queue): 12
26
24
4
42
8
50
Total head movement= 170


...Program finished with exit code 0
Press ENTER to exit console.[]
```

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