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#include<stdio.h>
#include<stdlib.h>
#include<math.h>
int main()
{
int queue[20],n,head,i,j,seek=0,max,diff,temp,queue1[20],queue2[20],temp1=0,temp2=0;
float avg;
printf("Enter the max range of disk:\n");
scanf("%d",&max);
printf("Enter the initial head position:\n");
scanf("%d",&head);
printf("Enter the size of queue request:\n");
scanf("%d",&n);
printf("Enter the queue of disk positions to be read:\n");
for(i=1;i<=n;i++)
{
scanf("%d",&temp);
if(temp>=head)
{
queue1[temp1]=temp;
temp1++;
}
else
{
queue2[temp2]=temp;
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temp2++;
}
}
for(i=0;i<temp1-1;i++)
{
for(j=i+1;j<temp1;j++)
{
if(queue1[i]>queue1[j])
{
temp=queue1[i];
queue1[i]=queue1[j];
queue1[j]=temp;
}
}
}
for(i=0;i<temp2-1;i++)
{
for(j=i+1;j<temp2;j++)
{
if(queue2[i]>queue2[j])
{
temp=queue2[i];
queue2[i]=queue2[j];
queue2[j]=temp;
}
```

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}
}
for(i=1,j=0;j<temp1;i++,j++)
queue[i]=queue1[j];
queue[i]=max;
queue[i+1]=0;
for(i=temp1+3,j=0;j<temp2;i++,j++)
queue[i]=queue2[j];

queue[0]=head;
for(j=0;j<=n+1;j++)
{
diff=abs(queue[j+1]-queue[j]);
seek+=diff;
printf("Disk head moves from %d to %d with seek: %d\n",queue[j],queue[j+1],diff);
}
printf("Total seek time is: %d\n",seek);
avg=seek/(float)n;
printf("Average seek time is: %f\n",avg);
return 0;
}
```