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(01)

First Come First Serve ^{Disk} Scheduling

Algorithm

- ① Read # disk requests
- ② Read disk queues
- ③ Read initial head position
- ④ Perform FCFS() disk scheduling
- ⑤ Call FCFS() from main()

FCFS

- ① movement = 0
- ② add head movements & distance to movements
- ③ update head position

Code

```
#include <stdio.h>
#include <stdlib.h>

void FCFS (int cylinder[], int num_cyl, int head_pos) {
    int movement = 0; int cur_cyl, distance;
    for (int i = 0; i < num_cyl; i++) {
        cur_cyl = cylinder[i];
        distance = abs(head_pos - cur_cyl);
        movement += distance;
        printf ("%d %d %d \n", head_pos, cur_cyl, distance);
        head_pos = cur_cyl;
    }
    printf ("Total # movements = %d \n", movement);
}

int main () {
    int cylinder [10], num_cyl, head_pos;
    scanf ("%d", &num_cyl); scanf ("%d", &head_pos);
    for (int i = 0; i < num_cyl; i++) scanf ("%d", &cylinder[i]);
    FCFS (cylinder, num_cyl, head_pos);
    return 0;
}
```

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Sample Output

53	98	45
98	183	35
183	37	146
37	122	85
122	14	108
14	124	110
124	65	59
65	67	2

Total # movements = 640

Sample Input

8	← # num cyls
53	← head position
98	← cylinder
183	
37	
122	
14	
124	
65	
67	

