Example that was done during Lecture 5

Average seek length (i.e. average number of tracks traversed)

For each of the disk scheduling algorithms we can easily calculate the total and average number of tracks that need to be traversed until the requests are satisfied. In these cases, for simplicity we assume static queues (i.e. no new requests enter the queue), and we assume that the disk head is on the first track in the queue (track 99 in our examples).

In the examples that we have in the lecture slides, the requests for tracks are in the queue in this order: 99, 10, 50, 150, 11, 30.

In the FIFO algorithm the requests are served in the order in which they are in the queue. The average seek length in this case can be calculated as follows:

Track	**Num. of tracks traversed**
99	0
10	89
50	40
150	100
11	139
30	19
Total	387
Average	64.5

You can try the calculations for SSFT (done in lecture), SCAN and C-SCAN and should find these answers:

SSFT: Avg: 38.2

SCAN: Avg: 31.8

SCAN-C: Avg: 38.5