

Question 1:

In continuation with the last example in the README, use the shortest access-time or positioning time first (SATF) scheduler (`-p SATF`) instead of SSTF. It makes no difference in the total time taken for 7, 30, 8 workload.

- a. Find a set of requests where SATF outperforms SSTF.
- b. More generally, when is SATF better than SSTF?

Question 2:

For the set of requests: 10, 11, 12, 13, the default setup performs poorly. Try adding track skew to improve the performance (`-o skew`), where `skew` is an integer.

- a. Given the default seek rate, what should the track skew be to maximize performance?
- b. Try the same thing for different seek rates (e.g., `-s 2`, `-s 4`)? In general, write a mathematical formula to figure out the track skew for a given disk, if you are provided with the seek rate, rotational latency, and sectors per track?

Question 3:

Go through the source code of `disk.py` and implement either the C-SCAN **OR** the C-LOOK algorithm. Write down a set of requests that will work better with your algorithm compared with the default FIFO algorithm.

The set of requests should be able to run with `-p SCAN` option.

Question 4:

Read about the following Linux disk schedulers and write a brief description of each.

- a. mq-deadline
- b. bfq