Scheduling Algorithms

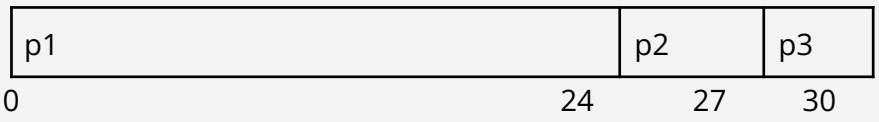
First-come first-served (FCFS) scheduling

The process that asks for the CPU first is given to the CPU first. The implementation of FCFS policy is easily handled with FIFO queue. The average waiting time under the FCFS policy, however, is often quite long.
It is non-preemptive.
It has a high average waiting time.

Example:

Process	Burst Time
P1	24
P2	3
P3	3

If the processes arrive in the order PI, P2, P3, and are served in FCFS order, we get the result shown in the following Gantt chart:



Average waiting time = (0+24+27) / 3 = 17 ms
Average Turnaround time = (24+27+30) / 3 = 27 ms

The FCFS algorithm is particularly troublesome for time – sharing systems, where it is important that each user get a share of the cpu at regular intervals.