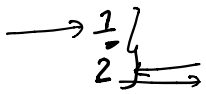
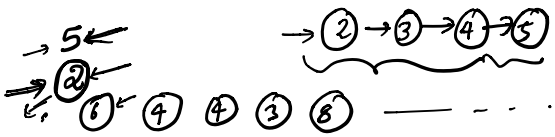
PRIORITY SCHEDULING ALGORITHM

- A priority is associated with each process and the cpu is allocated to the process with highest priority.
- If priority of multiple processes are same, cpu is allocated to process that arrived first.
- SJF algorithm is also a priority based algorithm where priority is the next cpu burst time.
- Priorities are indicated by some fixed range numbers like 0 to 20. There is no agreement on where 0 is lowest or highest priority.
- Some system use low numbers to represent low priority and some use low numbers to represent high priority

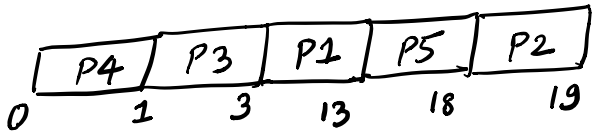


- In SJF, lower the burst time, higher is the priority
- Priority scheduling can be either preemptive or nonpreemptive



- Priority scheduling algorithms suffer from starvation.
- Aging technique can be used to prevent starvation.

	AT	BT	Priority	ST	CT	TAT	WT	RT
P1	0	10	3	3	13	13	3	3
P2	0	1	1	18	19	19	18	18
P3	0	2	4	1	3	3	1	1
P4	0	1	5	0	1	1	0	0
P5	0	5	2	13	18	18	13	13



TAT = CT - AT

WT = TAT - CPU BT - I/O BT

RT = ST - AT

Avg TAT = (13 + 19 + 3 + 1 + 18) / 5

Avg WT = (3 + 18 + 1 + 13) / 5

Avg RT = (3 + 18 + 1 + 13) / 5

CPU utilization = $\frac{19}{19} \times 100$

Throughput = $\frac{5}{19 - 0} = \frac{5}{19}$

Max(CT) - Min(AT)

non-preemptive priority scheduling