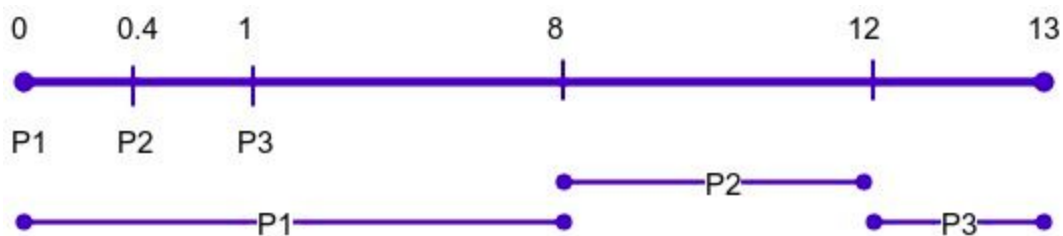


Lab 07: Scheduling

Course: Operating Systems

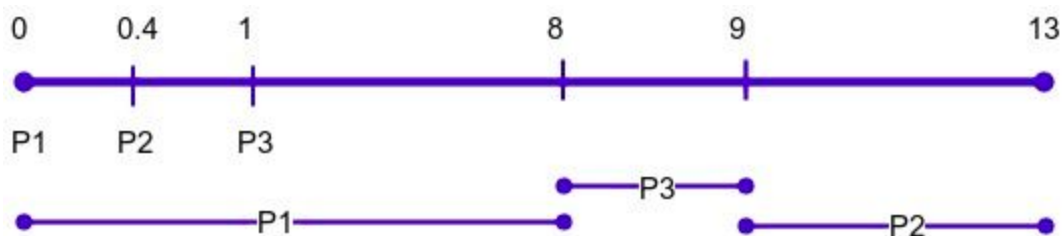
Exercise 1

A. FCFS Scheduling



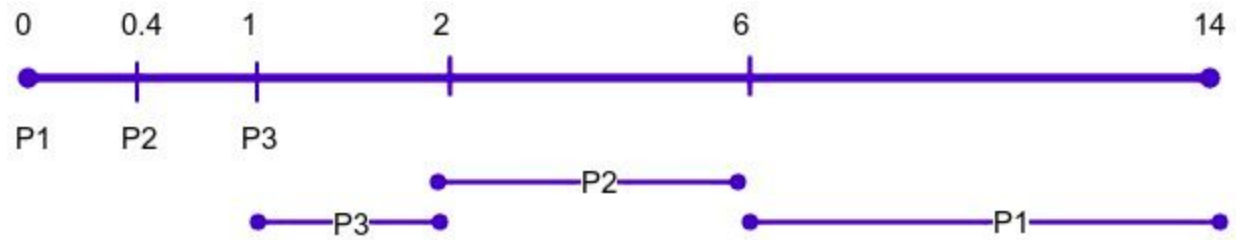
Process	P1	P2	P3	Average
Turnaround Time	8	$12 - 0.4 = 11.6$	$13 - 1 = 12$	$(8 + 11.6 + 12) / 3 = 10.53$

B. SJF Scheduling



Process	P1	P2	P3	Average
Turnaround Time	8	$13 - 0.4 = 12.6$	$9 - 1 = 8$	$(8 + 8 + 12.6) / 3 = 9.53$

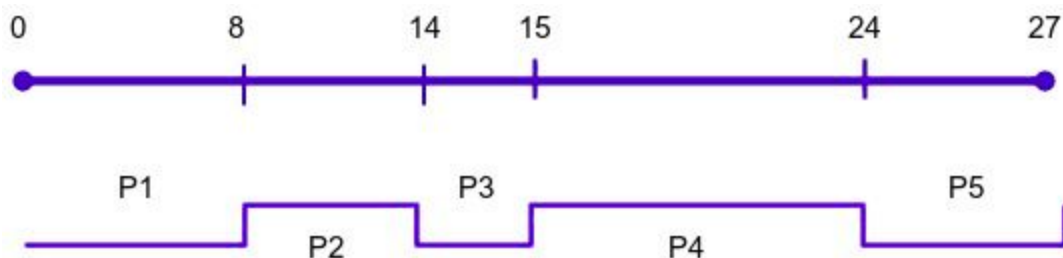
C. SJF Custom Scheduling



Process	P1	P2	P3	Average
Turnaround Time	14	$6 - 0.4 = 5.6$	$2 - 1 = 1$	$(14 + 5.6 + 1) / 3 = 6.87$

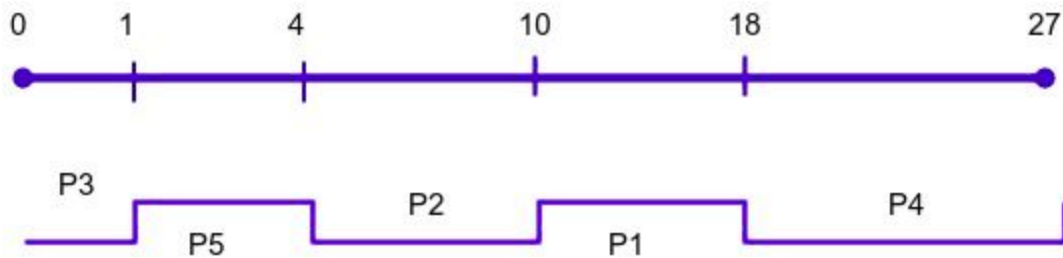
Exercise 2

A. FCFS Scheduling



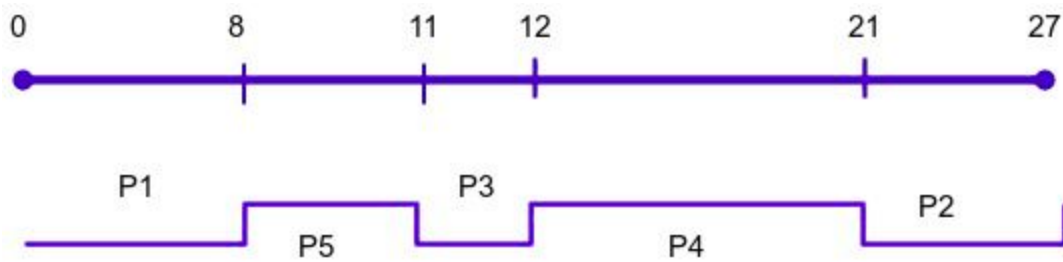
Process	P1	P2	P3	P4	P5	Average
Turnaround Time	8	14	15	24	27	$(8+14+15+24+27)/5 = 17.6$
Waiting Time	0	8	14	15	24	$(0+8+14+15+24)/5 = 12.2$

B. SJF Scheduling (Non-Preemptive)



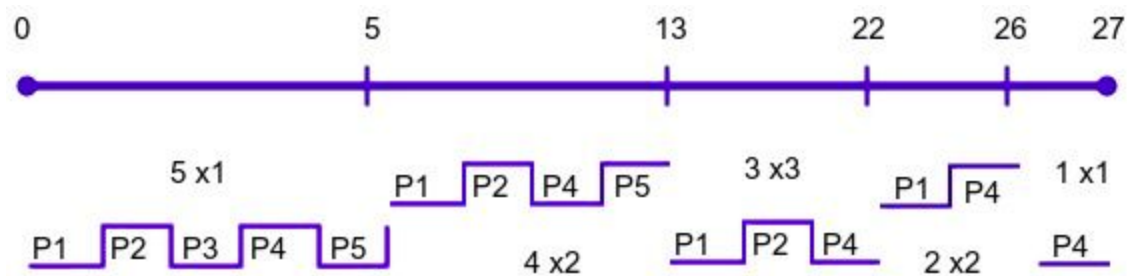
Process	P1	P2	P3	P4	P5	Average
Turnaround Time	18	10	1	27	4	$(18+10+1+27+4)/5 = 12$
Waiting Time	10	4	0	18	1	$(10+4+0+18+1)/5 = 6.6$

C. Non-Preemptive Priority Scheduling (Larger Priority ⇔ Higher Priority)



Process	P1	P2	P3	P4	P5	Average
Turnaround Time	8	27	12	21	11	$(8+27+12+21+11)/5 = 15.8$
Waiting Time	0	21	11	12	8	$(0+21+11+12+8)/5 = 10.4$

D. RR Scheduling (quantum = 1)



Process	P1	P2	P3	P4	P5	Average
Turnaround Time	26-1=25	22-1=21	5-2=3	27	13	$(25+21+3+27+13)/5 = 17.8$
Waiting Time	25-8=17	21-6=15	3-1=2	27-9=18	13-3=10	$(17+15+2+18+10)/5 = 12.4$

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