

Zoom Meeting 01:00:12

System Operasi - 5 - Google Slides

docs.google.com/presentation/d/1u8m55gX0t5y7qgH50Q3PMnaPPE\_MLd8H1X4wV/ad#slide=id.g070321cc0c\_0\_0

## Soal

- Terdapat 5 job (P1, P2, P3, P4, P5) yang datang hampir pada saat yang bersamaan. Estimasi waktu eksekusi (burst time) masing-masing 10, 6, 12, 9 dan 5 detik, dengan arrival time (0.0, 3.0, 5.0, 7.0, 8.0)

Process	Arrival Time	Burst Time
P1	0.0	10
P2	3.0	6
P3	5.0	12
P4	7.0	9
P5	8.0	5

Buatlah Gant Chart dan tentukan rata-rata waktu tunggu algoritma penjadwalan

- FCFS
- SJF (Non Preemptive)
- SJFP (Preemptive)
- Priority

210041 - M Fau...  
210041 - M Fauzan Azhil...  
210059 - Prames  
210059 - Prames  
210015 - Amir S...  
210015 - Amir Salim  
Rahmatullah Afrizal  
210067 - Raffan...  
210067 - Raffanisa Kamil...  
ORIEK JUNNIOR  
ORIEK JUNNIOR

Process	Arrival Time	Burst Time
P1	0.0	10
P2	3.0	6
P3	5.0	12
P4	7.0	9
P5	8.0	5

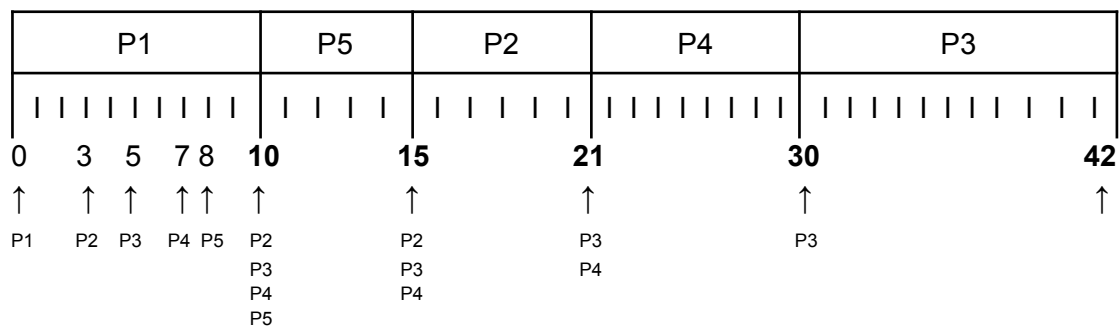
### A. FCFS

P1		P2		P3		P4		P5	
0	10	16		28		37		42	

WT = P1: 0  
P2: 10  
P3: 16  
P4: 28  
P5: 37

AWT =  $(0 + 10 + 16 + 28 + 37) / 5$   
= 18,2ms

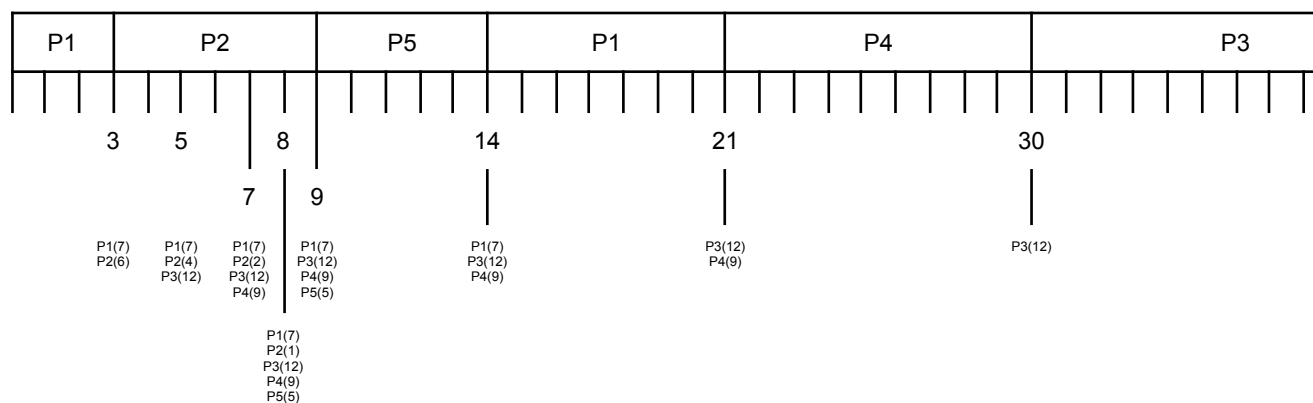
## B. SJF (Non Preemptive)



$$\begin{aligned}
 WT &= P1 = 0 \\
 &P2 = 15 - 3 = 12 \\
 &P3 = 30 - 5 = 25 \\
 &P4 = 21 - 7 = 14 \\
 &P5 = 10 - 8 = 2
 \end{aligned}$$

$$\begin{aligned}
 AWT &= (0 + 12 + 25 + 14 + 2)/5 \\
 &= 10,6 \text{ ms}
 \end{aligned}$$

## C. SJFP (Preemptive)



$$\begin{aligned}
 WT &= P1 = 0 + (14 - 3) = 11 \\
 &P2 = 0 \\
 &P3 = 30 - 5 = 25 \\
 &P4 = 21 - 7 = 14 \\
 &P5 = 9 - 8 = 1
 \end{aligned}$$

$$\begin{aligned}
 AWT &= (11 + 0 + 25 + 14 + 1)/5 \\
 &= 10,2 \text{ ms}
 \end{aligned}$$