

Homework#2 Solution

a. Gantt Charts are explained below:

FCFS Gant Chart

P1								P2				P3
1	2	3	4	5	6	7	8	9	10	11	12	13

SJF Gant Chart

P1								P3	P2			
1	2	3	4	5	6	7	8	9	10	11	12	13

b. Average turnaround time with FCFS

- Turnaround time (P1) = $8 - 0 = 8$
- Turnaround time (P2) = $12 - 0.4 = 11.6$
- Turnaround time (P3) = $13 - 1 = 12$

$$\text{Average turnaround time} = (8 + 11.6 + 12) / 3 = 31.6 / 3 = 10.53$$

c. Average turnaround time with SJF

- Turnaround time (P1) = $8 - 0 = 8$
 - Waiting Time = Turnaround Time – Burst Time = $8 - 8 = 0$
- Turnaround time (P2) = $13 - 0.4 = 12.6$
 - Waiting Time = Turnaround Time – Burst Time = $12.6 - 4 = 8.6$
- Turnaround time (P3) = $9 - 1 = 8$
 - Waiting Time = Turnaround Time – Burst Time = $8 - 1 = 7$

$$\text{Average waiting time} = (0 + 8.6 + 7) / 3 = 15.6 / 3 = 5.2$$