

Task 1:

Process	Arrival Time	CT	Turnaround time	Waiting time	Burst time
P ₁	0	6	$6 - 0 = 6$	$6 - 6 = 0$	6
P ₂	2	14	$14 - 2 = 12$	$12 - 8 = 4$	8
P ₃	4	21	$21 - 4 = 17$	$17 - 7 = 10$	7
P ₄	6	24	$24 - 6 = 18$	$18 - 3 = 15$	3

Gantt Chart:



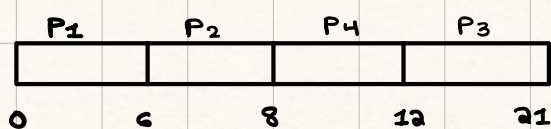
$$ATAT = \frac{6 + 12 + 17 + 18}{4} = 13.25 \text{ units}$$

$$AWT = \frac{0 + 4 + 10 + 15}{4} = 7.25 \text{ units}$$

Task 2:

Process	Arrival Time	CT	Turnaround time	Waiting time	Burst time
P ₁	1	6	$6 - 1 = 5$	$5 - 5 = 0$	5
P ₂	3	8	$8 - 3 = 5$	$5 - 2 = 3$	2
P ₃	6	12	$12 - 6 = 6$	$6 - 4 = 2$	4
P ₄	5	21	$21 - 5 = 16$	$16 - 9 = 7$	9

Gantt Chart:



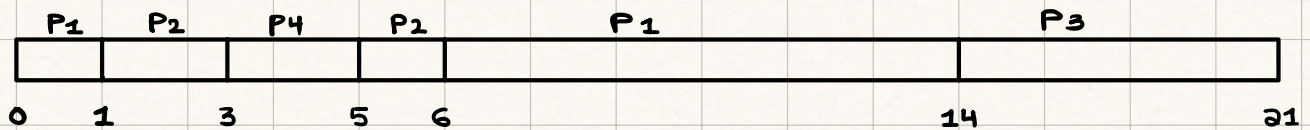
$$ATAT = \frac{5+5+6+16}{4} = 8 \text{ units}$$

$$AWT = \frac{0+3+2+7}{4} = 3 \text{ units}$$

Task 3 :

Process	Arrival Time	CT	Turnaround time	Waiting time	Burst time
P ₁	0	14	14 - 0 = 14	14 - 9 = 5	9
P ₂	1	6	6 - 1 = 5	5 - 4 = 1	4
P ₃	2	21	21 - 2 = 19	19 - 7 = 12	7
P ₄	3	5	5 - 3 = 2	2 - 2 = 0	2

Gantt Chart :



$$ATAT = \frac{14+5+19+2}{4} = 10 \text{ units}$$

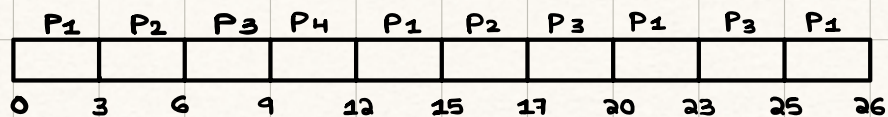
$$AWT = \frac{5+1+12+0}{4} = 4.5 \text{ units}$$

Task 4 :

Process	Arrival Time	CT	Turnaround time	Waiting time	Burst time
P ₁	0	26	26 - 0 = 26	26 - 10 = 16	10
P ₂	1	17	17 - 1 = 16	16 - 5 = 11	5
P ₃	2	25	25 - 2 = 23	23 - 8 = 15	8

P ₄	3	12	$12 - 3 = 9$	$9 - 3 = 6$	3
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Gantt Chart :



$$ATAT = \frac{26 + 16 + 23 + 9}{4} = 18.5 \text{ units}$$

$$AWT = \frac{16 + 11 + 15 + 6}{4} = 12 \text{ units}$$

Task 5 :

Process	Arrival Time	CT	Turnaround time	Waiting time	Burst time
P ₁	0	30	$30 - 0 = 30$	$30 - 12 = 18$	12
P ₂	2	20	$20 - 2 = 18$	$18 - 6 = 12$	6
P ₃	4	26	$26 - 4 = 22$	$22 - 8 = 14$	8
P ₄	6	16	$16 - 6 = 10$	$10 - 4 = 6$	4

Gantt Chart :



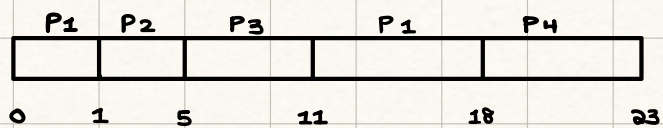
$$ATAT = \frac{30 + 18 + 22 + 10}{4} = 20 \text{ units}$$

$$AWT = \frac{18 + 12 + 14 + 6}{4} = 12.5 \text{ units}$$

Task 6 :

Process	AT	Priority	CT	Turnaround time	Waiting time	Burst time
P ₁	0	3	18	$18 - 0 = 18$	$18 - 7 = 11$	7
P ₂	1	1	5	$5 - 1 = 4$	$5 - 1 - 4 = 0$	4
P ₃	2	2	11	$11 - 2 = 9$	$11 - 2 - 6 = 3$	6
P ₄	3	4	23	$23 - 3 = 20$	$20 - 5 = 15$	5

Gantt Chart :



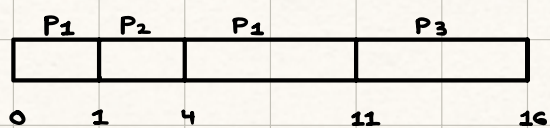
$$ATAT = \frac{18 + 4 + 9 + 20}{4} = 12.75 \text{ units}$$

$$AWT = \frac{11 + 0 + 3 + 15}{4} = 7.25 \text{ units}$$

Task 7 :

Process	AT	Priority	CT	Turnaround time	Waiting time	Burst time
P ₁	0	2	11	$11 - 0 = 11$	$11 - 8 = 3$	8
P ₂	1	1	4	$4 - 1 = 3$	$3 - 3 = 0$	3
P ₃	2	3	16	$16 - 2 = 14$	$14 - 5 = 9$	5

Gantt Chart :



$$\text{ATAT} = \frac{11 + 3 + 14}{3} = 9.333 \text{ units}$$

$$\text{AWT} = \frac{3 + 0 + 9}{3} = 4 \text{ units}$$