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## Lab 3

$WT = ST - AT$

$AT = WT + BT$

$RT = WT$

non preemptive

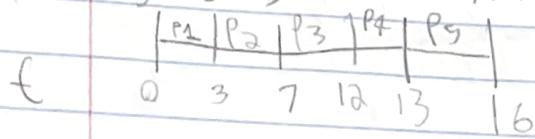
$preemptive = RT = FST - AT$

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Sample Data:

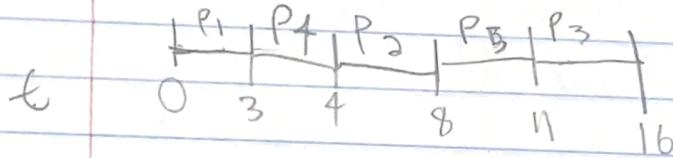
Process	AT	BT	Priority
1	0	3	
2	1	4	2
3	2	5	1
4	2	1	3
5	2	3	2

1) FCFS (First come, first serve)



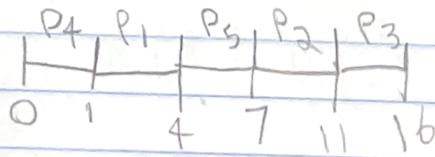
	WT	TAT	RT
P1	0	3	0
P2	2	6	2
P3	5	10	5
P4	10	11	10
P5	8	11	8
Avg	5	8.2	5

2a) SJF (shortest job first)



	WT	TAT	RT
P1	0	3	0
P2	3	7	3
P3	9	14	9
P4	1	2	1
P5	3	6	3
Avg	3.2	6.4	3.2

2b) SJF, Arrival time all zero



	WT	TAT	RT
P1	1	4	1
P2	7	11	7
P3	11	16	11
P4	0	1	0
P5	4	7	4
Avg	4.6	7.6	4.6

# Lab 3

$$WT = ST - AT$$

$$TAT = WT + BT$$

$$\text{preemptive } RT = FST - AT$$

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Ben Fisher

3) SRT (Shortest remaining time)

			WT.	TAT	RT
	↳ preemptive SJF		P <sub>1</sub>	0	3
t	0   P <sub>1</sub>   P <sub>2</sub>   P <sub>3</sub>   P <sub>4</sub>   P <sub>5</sub>	3 + 8 11 16	P <sub>2</sub>	3	7
			P <sub>3</sub>	9	14
			P <sub>4</sub>	1	2
			P <sub>5</sub>	3	6
			Avg	3.2	6.4
					3.2

4a) PSN (Priority)

	↳ Non preemptive		P <sub>1</sub>	0	3	0
t	0   P <sub>1</sub>   P <sub>2</sub>   P <sub>3</sub>   P <sub>4</sub>   P <sub>5</sub>	3 7 10 11 16	P <sub>2</sub>	2	6	2
			P <sub>3</sub>	9	14	9
			P <sub>4</sub>	8	a	8
			P <sub>5</sub>	2	5	2
			Avg	4.2	7.4	4.2

4b) PSN (arrival time zero)

	P <sub>1</sub>	7	10	7		
t	0   P <sub>2</sub>   P <sub>3</sub>   P <sub>1</sub>   P <sub>4</sub>   P <sub>5</sub>	4 7 10 11 16	P <sub>2</sub>	0	4	0
			P <sub>3</sub>	11	16	11
			P <sub>4</sub>	10	11	10
			P <sub>5</sub>	4	7	4
			Avg	6.4	9.6	6.4

5) PSP

	P <sub>1</sub>	3	10	0		
t	0   P <sub>2</sub>   P <sub>5</sub>   P <sub>1</sub>   P <sub>4</sub>   P <sub>3</sub>	1 5 8 10 11 16	P <sub>2</sub>	0	4	0
			P <sub>3</sub>	9	14	9
			P <sub>4</sub>	8	a	4
			P <sub>5</sub>	0	3	0
			Avg	4.6	8.0	3.4

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(b) Round Robin - quantum 7

Avg	6.0	4.2	2.4
P <sub>1</sub>	8	3	0
P <sub>2</sub>	2	6	2
P <sub>3</sub>	9	14	5
P <sub>4</sub>	9	10	9
P <sub>5</sub>	7	10	7
Avg	5.4	8.6	4.6

6c) Round robin - quantum of

P1	P2	P3	P4	P5

6c) Round robin - quantum 8					AVG	5.4	8.6	7.6
P1	P2	P3	P4	P5	P1	9	3	0
t = 0	3	7	12	13	P2	2	6	2
					P3	5	10	5
					P4	10	11	10
					P5	8	11	11
					Avg	5	8.2	5