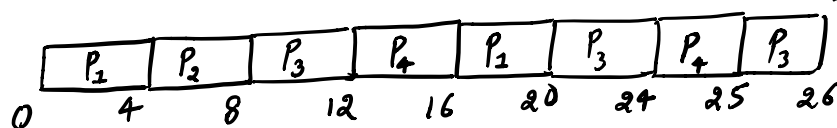


## ROUND ROBIN SCHEDULING IN OPERATING SYSTEM

- Similar to FCFS scheduling with two notable differences
  - Preemptive scheduling
  - Time quantum or time slice
- Better suited for time-sharing operating systems

	AT	BT	ST	CT	TAT	WT	RT	
<del>X</del> P <sub>1</sub>	0	<del>8</del> 4	<del>0</del> 8	<del>8</del> 20	<del>20</del> 7	<del>12</del> 3	<del>3</del> 0	
<del>X</del> P <sub>2</sub>	P <sub>1</sub>	0	8	8	20	7	20	3
P <sub>3</sub>	P <sub>2</sub>	1	9	4	26	8	24	7
<del>X</del> P <sub>4</sub>	P <sub>3</sub>	2	10	8	26	8	24	17
P <sub>4</sub>	3	3	11	12	25	22	24	17

Ready: ~~P<sub>1</sub>~~ ~~P<sub>2</sub>~~ ~~P<sub>3</sub>~~ ~~P<sub>4</sub>~~ ~~P<sub>1</sub>~~ ~~P<sub>2</sub>~~ ~~P<sub>3</sub>~~ ~~P<sub>4</sub>~~



$$\text{Avg TAT} = (20 + 7 + 24 + 22) / 4$$

$$\text{Avg WT} = (12 + 3 + 15 + 17) / 4$$

$$\text{Avg RT} = (3 + 6 + 9) / 4$$

$$\text{TAT} = \text{CT} - \text{AT}$$

$$\text{WT} = \text{TAT} - \text{CPU BT} - \text{IO/BT}$$

$$\text{RT} = \text{ST} - \text{AT}$$

$$\text{CPU utilization} = \frac{26}{26} \times 100$$

$$\text{Throughput} = \frac{4}{26 - 0} = \frac{2}{13}$$

Max(CT) - Min(AT)