36. a. SRTF (Non-preemptive)

$\boxtimes$ - Context switch overhead

Timeline markers: 1, 5, 5.5 ↓, 6.5, 7 ↓, 9, 9.5 ↓, 12.5

Blocks: P1 | ▨ | P4 | ▨ | P3 | ▨ | P2

↑ P1 Arrives @ t=1
↑ P2, P3 arrives @ t=2
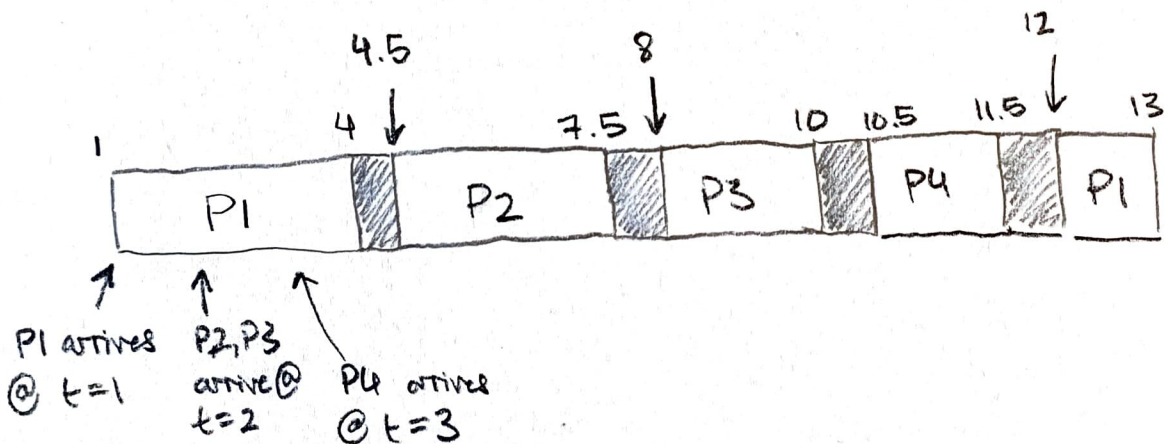↑ P4 arrives @ t=3
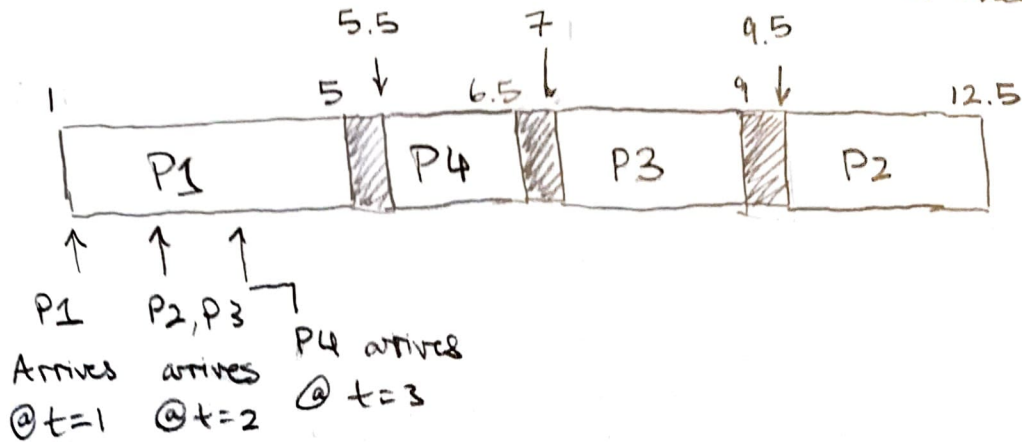
$$ART = [(5-1)+(12.5-2)+(9-2)+(6.5-3)]/4$$

$$= [4+10.5+7+3.5]/4 = [25]/4 = 6.25s$$

b. Round Robin (TQ = 3s)

Timeline markers: 1, 4, 4.5 ↓, 7.5 ↓, 8, 10, 10.5, 11.5, 12 ↓, 13

Blocks: P1 | ▨ | P2 | ▨ | P3 | ▨ | P4 | ▨ | P1

↑ P1 arrives @ t=1
↑ P2, P3 arrive @ t=2
↑ P4 arrives @ t=3

$$ART = [(13-1)+(7.5-2)+(10-2)+(11.5-3)]/4$$

$$= [12+5.5+8+8.5]/4 = 8.5s$$