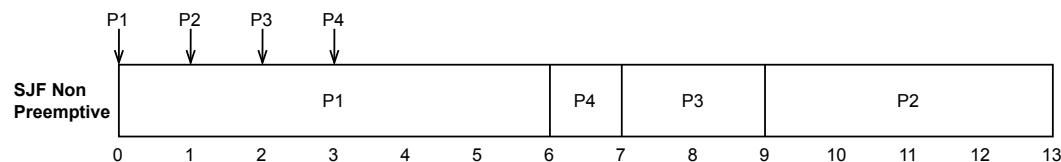


$$\begin{aligned} T_{\text{waiting}} &= [0+(6-1)+(10-2)+(12-3)]/4 \\ &= (5+8+9)/4 \\ &= 22/4 = 5,5 \text{ ms} \end{aligned}$$

|     |      |            |
|-----|------|------------|
| P1: | 0(6) | → (0)      |
| P2: | 1(4) | 1(4) → (0) |
| P3: | 2(2) | 2(2) → (0) |
| P4: | 3(1) | 3(1) → (0) |

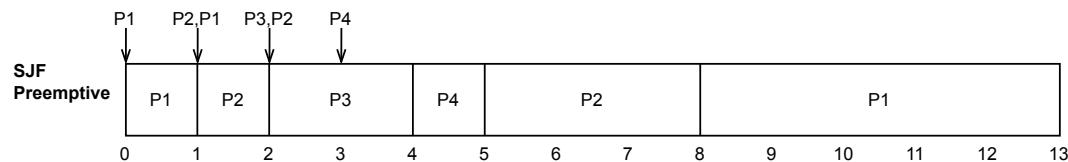
$$\begin{aligned} T_{\text{turnaround}} &= [(6-0)+(10-1)+(12-2)+(13-3)]/4 \\ &= (6+9+10+10)/4 \\ &= 35/4 = 8,75 \text{ ms} \end{aligned}$$



$$\begin{aligned} T_{\text{waiting}} &= [0+(9-1)+(7-2)+(6-3)]/4 \\ &= (8+5+3)/4 \\ &= 16/4 = 4 \text{ ms} \end{aligned}$$

|     |     |           |
|-----|-----|-----------|
| P1: | (6) | → (0)     |
| P2: | (4) | (4) → (0) |
| P3: | (2) | (2) → (0) |
| P4: | (1) | (1) → (0) |

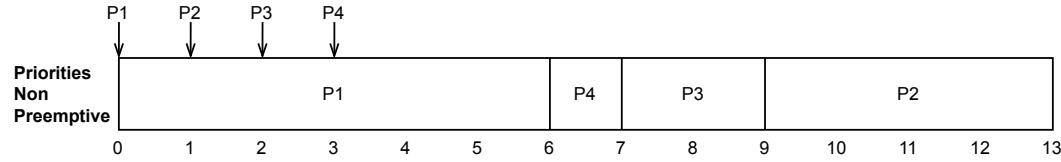
$$\begin{aligned} T_{\text{turnaround}} &= [(6-0)+(13-1)+(9-2)+(7-3)]/4 \\ &= (6+12+7+4)/4 \\ &= 29/4 = 7,25 \text{ ms} \end{aligned}$$



$$\begin{aligned} T_{\text{waiting}} &= [(8-1)+(5-2)+0+(4-3)]/4 \\ &= (7+3+1)/4 \\ &= 11/4 = 2,75 \text{ ms} \end{aligned}$$

|     |     |                 |
|-----|-----|-----------------|
| P1: | (6) | → (5)           |
| P2: | (4) | → (3)           |
| P3: | (2) | (2) → (1) → (0) |
| P4: | (1) | (1) → (0)       |

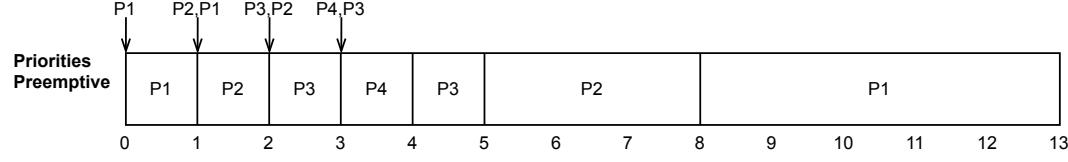
$$\begin{aligned} T_{\text{turnaround}} &= [(13-0)+(8-1)+(4-2)+(5-3)]/4 \\ &= (13+7+2+2)/4 \\ &= 24/4 = 6 \text{ ms} \end{aligned}$$



$$T_{\text{waiting}} = \text{SJF Non Preemptive}$$

|     |      |            |
|-----|------|------------|
| P1: | 4(6) | → (0)      |
| P2: | 3(4) | 3(4) → (0) |
| P3: | 2(2) | 2(2) → (0) |
| P4: | 1(1) | 1(1) → (0) |

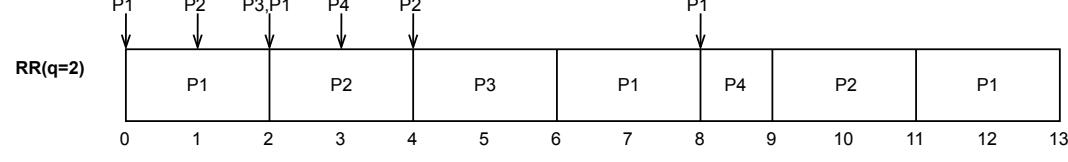
$$T_{\text{turnaround}} = \text{SJF Non Preemptive}$$



$$\begin{aligned} T_{\text{waiting}} &= [(8-1)+(5-2)+(4-3)+0]/4 \\ &= (7+3+1)/4 \\ &= 11/4 = 2,75 \text{ ms} \end{aligned}$$

|     |      |             |
|-----|------|-------------|
| P1: | 4(6) | → 4(5)      |
| P2: | 3(4) | 3(4) → 3(3) |
| P3: | 2(2) | 2(2) → 2(1) |
| P4: | 1(1) | 1(1) → (0)  |

$$\begin{aligned} T_{\text{turnaround}} &= [(13-0)+(8-1)+(5-2)+(4-3)]/4 \\ &= (13+7+3+1)/4 \\ &= 24/4 = 6 \text{ ms} \end{aligned}$$



$$\begin{aligned} T_{\text{waiting}} &= [(6-2)+(11-8)+(2-1)+(9-4) \\ &\quad +(4-2)+(8-3)]/4 \\ &= (4+3+1+5+2+5)/4 \\ &= 20/4 = 5 \text{ ms} \end{aligned}$$

|     |      |             |
|-----|------|-------------|
| P1: | 0(6) | → 2(4)      |
| P2: | 1(4) | 0(4) → 3(2) |
| P3: | 1(2) | 0(2) → (0)  |
| P4: | 3(1) | 2(1) → (0)  |

$$\begin{aligned} T_{\text{turnaround}} &= [(13-0)+(11-1)+(6-2)+(9-3)]/4 \\ &= (13+10+4+6)/4 \\ &= 33/4 = 8,25 \text{ ms} \end{aligned}$$