

The waiting time for a task is the difference between its start time and its arrival time.

### 3.1: Round Robin scheduling

Task	Arrival Time	Start Time	Waiting Time
T1	0	0	0
T2	0	1	1
T3	0	3	3
T4	0	6	6
T5	0	9	9

-Task that waits the longest: T5 (waiting time = 9 units)

-Task that waits the shortest: T1 (waiting time = 0 units)

$$\text{Average Waiting Time} = \frac{0+1+3+6+9}{5} = 3.8$$

### 3.2: First Come First Serve scheduling

From the FCFS scheduling table, we can determine the waiting times for each task.

Task	Arrival Time	Start time	Waiting Time
T1	0	0	0
T2	0	1	1
T3	0	3	3
T4	0	6	6
T5	0	9	9
T6	11	15	4
T7	11	21	10
T8	11	25	14
T9	11	29	18
T10	11	33	22

-Task that waits the longest: T10 (waiting time = 22 units)

-Task that waits the shortest: T1 (waiting time = 0 units)

$$\text{Average Waiting Time} = \frac{0+1+3+6+9+4+10+14+18+22}{10} = 8.7$$