Task 3

First Come First Serve Scheduler

Task	Time to Wait
T1	0
T2	1
T3	3
T4	7
T5	13
T6	10
T7	18
T8	24
T9	28
T10	30
sum:	134

Algorithm 1:

```
T (when scheduled) - T (when added)
```

ex:

T4:

```
7 - 0 = 7
```

T6:

```
21 - 11 = 10
```

Round Robin Scheduler

Task	Wait steps	Time to Wait Sum
T1	0	0
T2	1	1
T3	3 + 7	10
T4	6 + 5	11
T5	9 + 17 + 8	34
T6	5 + 13 + 7	25
T7	8 + 13	21
T8	11 + 13	24
T9	24	24
T10	26	26
sum:		176

Algorithm 2 - Wait step calculation:

`T (when scheduled) - T (when previously scheduled)`

The `T (when previously scheduled)` time should be the Time step when it was last scheduled before getting put back in queue.

Used together with algorithm from FCFS calculation.

Wait steps will then be:

`Algorithm 1 + Algorithm 2`

where Algorithm 2 will be repeated as many times as necessary.

ex:

T5:

`(9 - 0) + (28 - 9) + (38 - 30) = 9 + 17 + 8 = 34`

T8:

`(22 - 11) + (37 - 24) = 11 + 13 = 24`

Answers

For the FCFS scheduler, task T10 had to wait the longest, for 30 steps, and task T1 waited the shortest, with 0 steps.

For the RR scheduler, task T5 waited the longest with 34 steps, and task T1 waited the shortest with 0 steps.

The average wait time for FCFS scheduler was **13.4**,
and the average for RR scheduler was **17.6**