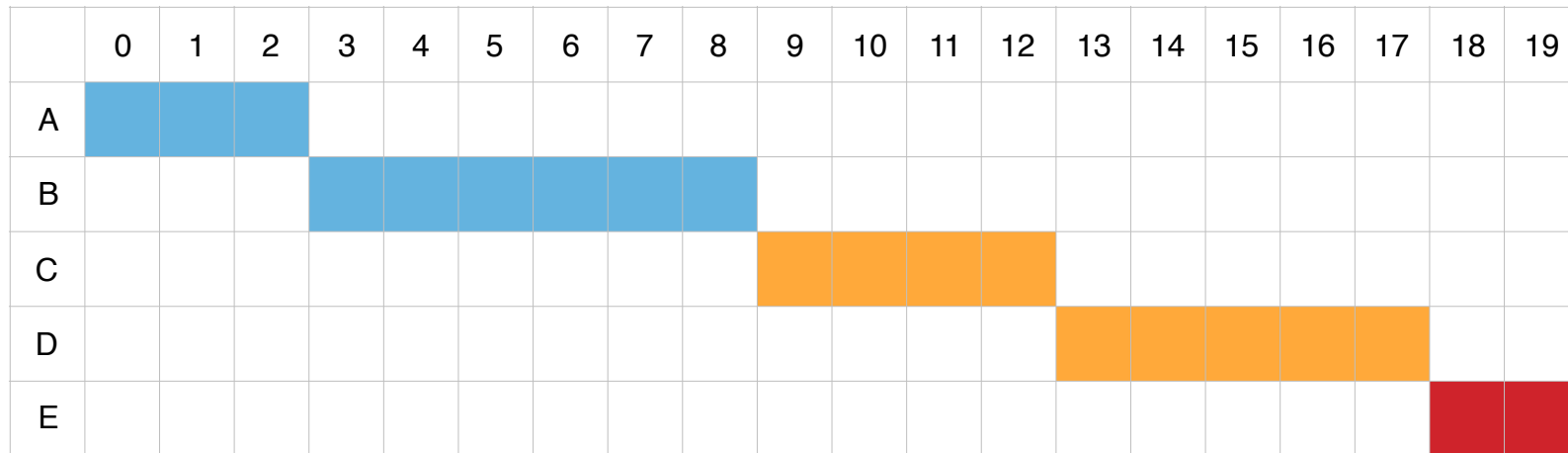


1. FCFS (First Come First Served)



Turnaround Time:

$$A = 3 - 0 = 3$$

$$B = 9 - 2 = 7$$

$$C = 13 - 4 = 9$$

$$D = 18 - 6 = 12$$

$$E = 20 - 8 = 12$$

$$AVG = 8,4$$

Response Time:

$$A = 0 - 0 = 0$$

$$B = 3 - 2 = 1$$

$$C = 9 - 4 = 5$$

$$D = 13 - 6 = 7$$

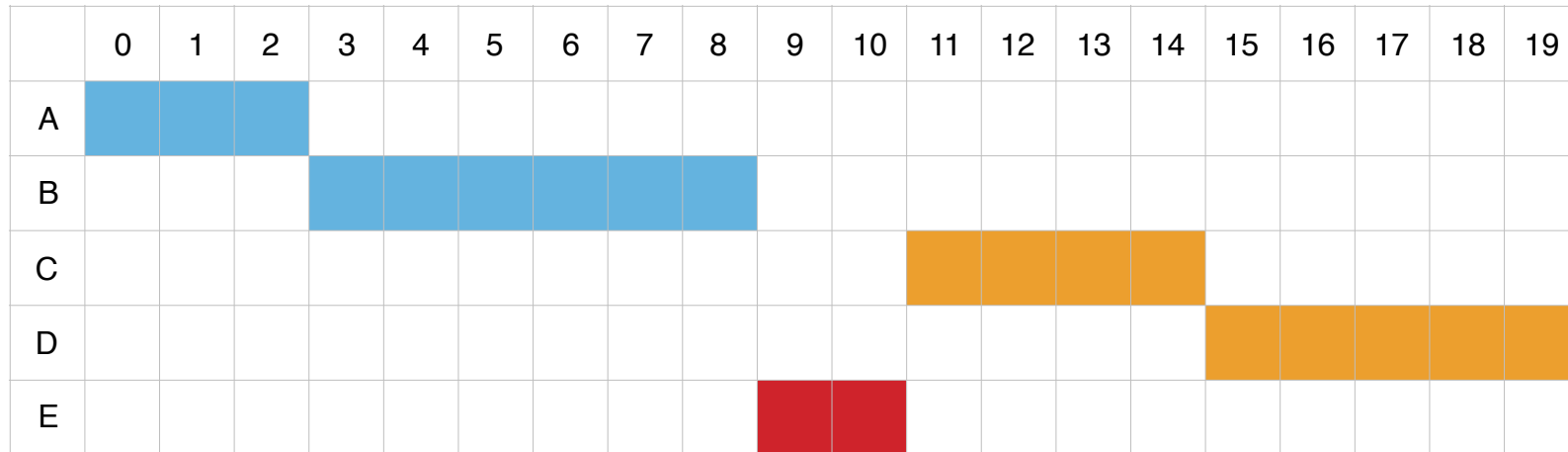
$$E = 18 - 8 = 10$$

$$AVG = 4,6$$

Troughput: 0.25

Process	Arrival Time	Service Time	Priority
A	0	3	1
B	2	6	1
C	4	4	2
D	6	5	2
E	8	2	3

2. SPN (Shortest Process Next)



Turnaround Time:

$$A = 3 - 0 = 3$$

$$B = 9 - 2 = 7$$

$$C = 15 - 4 = 11$$

$$D = 20 - 6 = 14$$

$$E = 11 - 8 = 3$$

$$AVG = 7,6$$

Response Time:

$$A = 0 - 0 = 0$$

$$B = 3 - 2 = 1$$

$$C = 11 - 4 = 7$$

$$D = 15 - 6 = 9$$

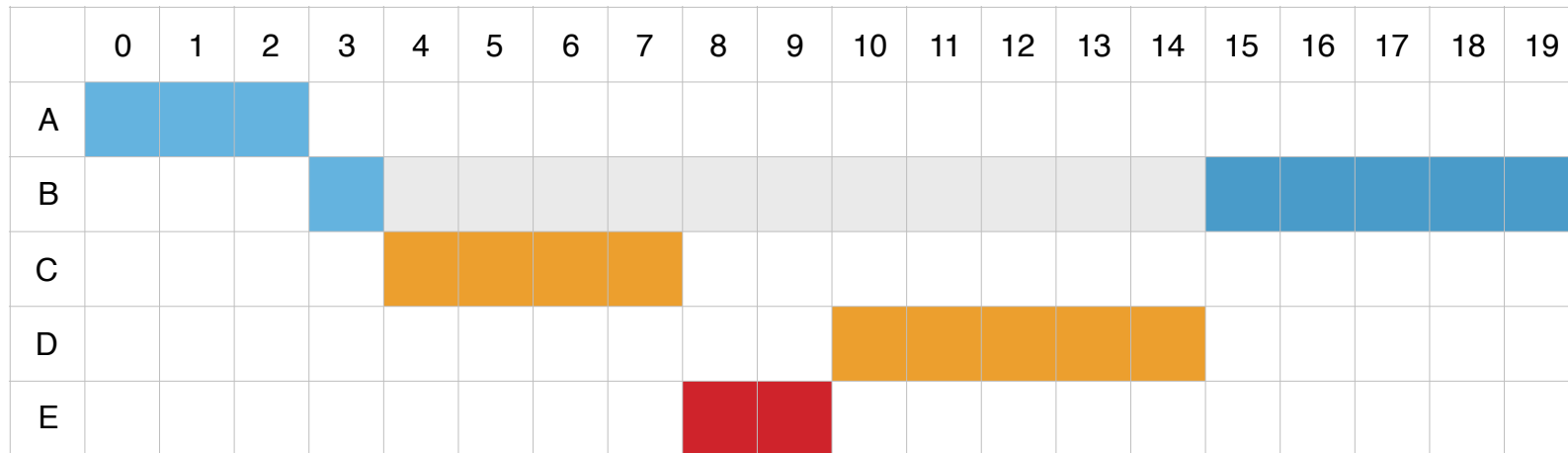
$$E = 9 - 8 = 1$$

$$AVG = 3,6$$

Troughput: 0.25

Process	Arrival Time	Service Time	Priority
A	0	3	1
B	2	6	1
C	4	4	2
D	6	5	2
E	8	2	3

3. SRT (Shortest Remaining Time Next)



Turnaround Time:

$$\begin{aligned}
 A &= 3 - 0 = 3 \\
 B &= 20 - 2 = 18 \\
 C &= 8 - 4 = 4 \\
 D &= 15 - 6 = 9 \\
 E &= 10 - 8 = 2
 \end{aligned}$$

$$AVG = 7,2$$

Response Time:

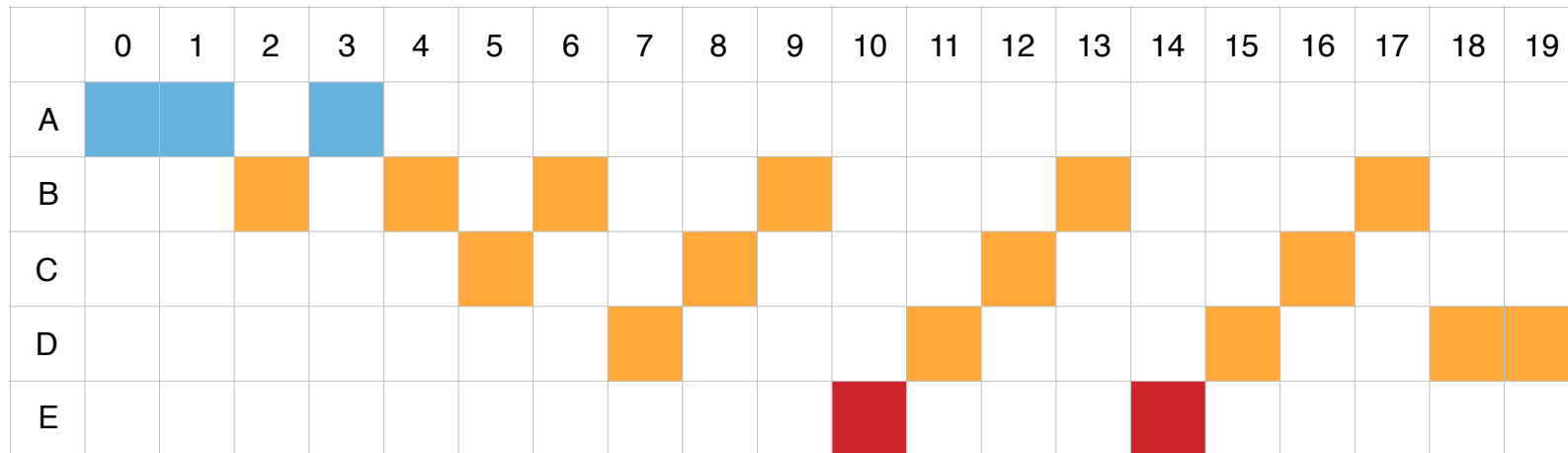
$$\begin{aligned}
 A &= 0 - 0 = 0 \\
 B &= 3 - 2 = 1 \\
 C &= 4 - 4 = 0 \\
 D &= 10 - 6 = 4 \\
 E &= 8 - 8 = 0
 \end{aligned}$$

$$AVG = 1,0$$

Troughput: 0.25

Process	Arrival Time	Service Time	Priority
A	0	3	1
B	2	6	1
C	4	4	2
D	6	5	2
E	8	2	3

4. Round Robin (Quantum 1)



Turnaround Time:

$$A = 4 - 0 = 4$$

$$B = 18 - 2 = 16$$

$$C = 17 - 4 = 13$$

$$D = 20 - 6 = 14$$

$$E = 15 - 8 = 7$$

$$AVG = 10,8$$

Response Time:

$$A = 0 - 0 = 0$$

$$B = 2 - 2 = 0$$

$$C = 5 - 4 = 1$$

$$D = 7 - 6 = 1$$

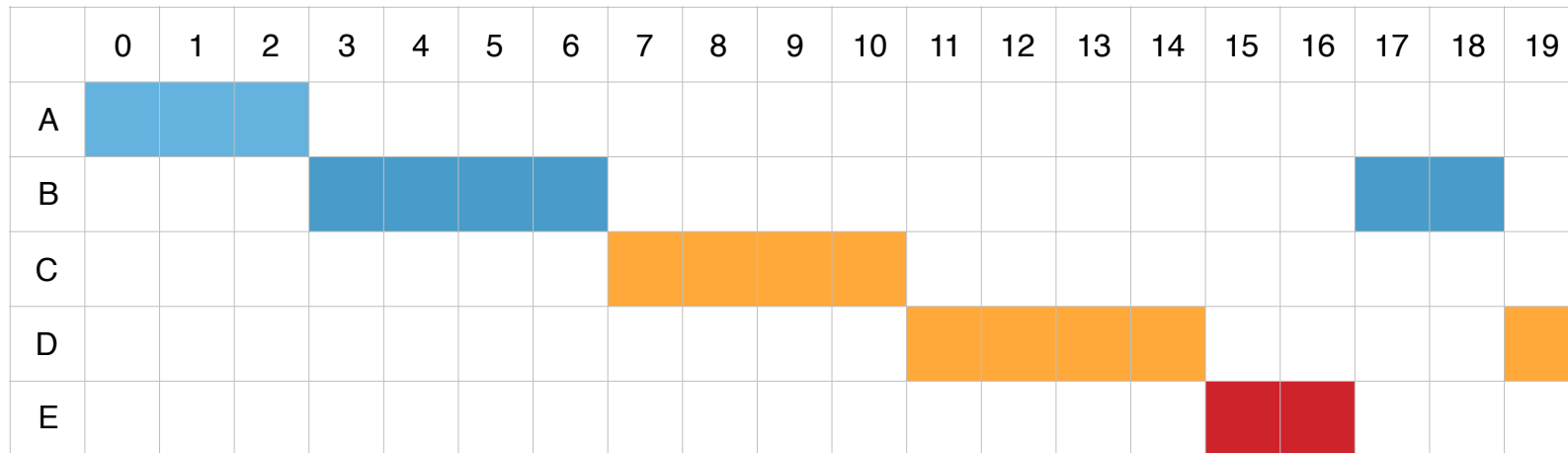
$$E = 10 - 8 = 2$$

$$AVG = 0,8$$

Troughput: 0.25

Process	Arrival Time	Service Time	Priority
A	0	3	1
B	2	6	1
C	4	4	2
D	6	5	2
E	8	2	3

5. Round Robin (Quantum 4)



Turnaround Time:

$$A = 3 - 0 = 3$$

$$B = 7 - 2 = 5$$

$$C = 11 - 4 = 7$$

$$D = 20 - 6 = 14$$

$$E = 17 - 8 = 9$$

$$AVG = 8$$

Response Time:

$$A = 0 - 0 = 0$$

$$B = 3 - 2 = 1$$

$$C = 7 - 4 = 3$$

$$D = 11 - 6 = 5$$

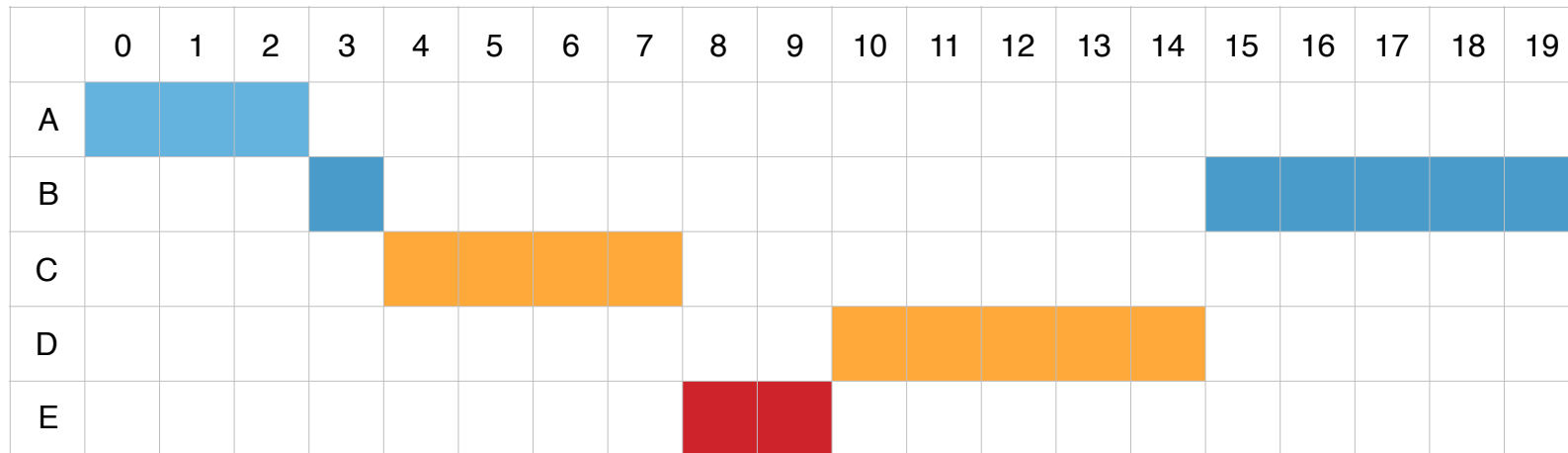
$$E = 15 - 8 = 7$$

$$AVG = 3,2$$

Troughput: 0.25

Process	Arrival Time	Service Time	Priority
A	0	3	1
B	2	6	1
C	4	4	2
D	6	5	2
E	8	2	3

6. Highest Priority (preemptive)



Turnaround Time:

$$\begin{aligned}
 A &= 3 - 0 = 3 \\
 B &= 20 - 2 = 18 \\
 C &= 8 - 4 = 4 \\
 D &= 15 - 6 = 9 \\
 E &= 10 - 8 = 2
 \end{aligned}$$

$$AVG = 7,2$$

Response Time:

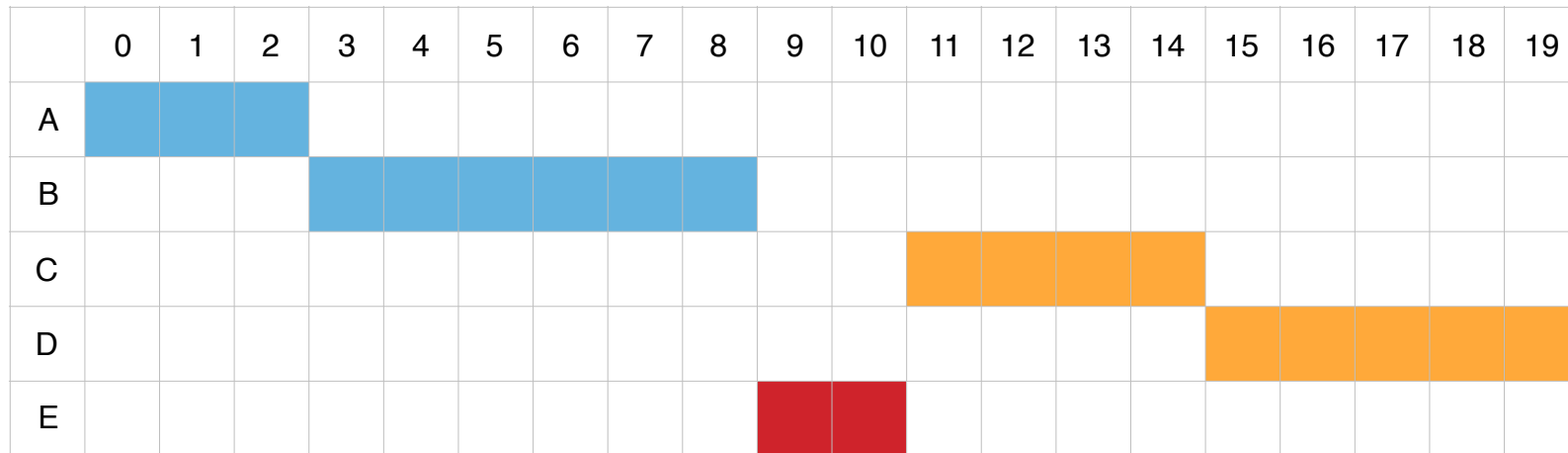
$$\begin{aligned}
 A &= 0 - 0 = 0 \\
 B &= 3 - 2 = 1 \\
 C &= 4 - 4 = 0 \\
 D &= 10 - 6 = 4 \\
 E &= 8 - 8 = 0
 \end{aligned}$$

$$AVG = 1,0$$

Troughput: 0.25

Process	Arrival Time	Service Time	Priority
A	0	3	1
B	2	6	1
C	4	4	2
D	6	5	2
E	8	2	3

7. Highest Priority (non preemptive)



Turnaround Time:

$$A = 3 - 0 = 3$$

$$B = 9 - 2 = 7$$

$$C = 11 - 4 = 7$$

$$D = 15 - 6 = 9$$

$$E = 20 - 8 = 12$$

$$AVG = 7,6$$

Response Time:

$$A = 0 - 0 = 0$$

$$B = 3 - 2 = 1$$

$$C = 11 - 4 = 7$$

$$D = 15 - 6 = 9$$

$$E = 9 - 8 = 1$$

$$AVG = 3,6$$

Troughput: 0.25

Process	Arrival Time	Service Time	Priority
A	0	3	1
B	2	6	1
C	4	4	2
D	6	5	2
E	8	2	3