

```

C:\Users\ ani \Desktop\Computer\Isa 2 project>mingw32-make -f make.mk
gcc -c server.c
gcc client.o server.o

C:\Users\ ani \Desktop\Computer\Isa 2 project>a
Program to simulate a small busy airport with two runways.
Runway1 is usually used for landing and Runway 2 is usually used for takeoff.
Planes arrive ready to land or takeoff at random time.
If one of the queues is empty, then both runways are used for the other queue.
If the landing queue is full and another plane arrives to land, then takeoffs will be stopped and both
runways are used to clear the backlog of landing planes
How many units of time do you want the simulation to run?20
Expected number of arrivals per unit time?0.47
Expected number of departures per unit time?0.58

Invalid numbers.
Expected number of arrivals per unit time?0.47
Expected number of departures per unit time?0.47

1: Runway is idle.
2: Runway is idle.
3: Runway is idle.

Plane 1 requesting permission to land.
4: Plane 1 landed on Runway 1 ;in queue for 0 units

Plane 2 requesting permission to land.
5: Plane 2 landed on Runway 1 ;in queue for 0 units

6: Runway is idle.

Plane 3 requesting permission to land.
7: Plane 3 landed on Runway 1 ;in queue for 0 units

Plane 4 requesting permission to land.
8: Plane 4 landed on Runway 1 ;in queue for 0 units

Plane 5 requesting permission to land.
Plane 6 requesting permission to takeoff.
9: Plane 5 landed on Runway 1 ;in queue for 0 units
9: Plane 6 took off on Runway 2 ;in queue for 0 units

```

```
Plane 7 requesting permission to land.
Plane 8 requesting permission to takeoff.
10: Plane 7 landed on Runway 1 ;in queue for 0 units
10: Plane 8 took off on Runway 2 ;in queue for 0 units

11: Runway is idle.

Plane 9 requesting permission to takeoff.
12: Plane 9 took off on Runway 2 ;in queue for 0 units

13: Runway is idle.

Plane 10 requesting permission to land.
14: Plane 10 landed on Runway 1 ;in queue for 0 units

15: Runway is idle.

Plane 11 requesting permission to takeoff.
Plane 12 requesting permission to takeoff.
Plane 13 requesting permission to takeoff.
16: Plane 11 took off on Runway 2 ;in queue for 0 units
16: Plane 12 took off on Runway 1 ;in queue for 0 units

Plane 14 requesting permission to land.
17: Plane 14 landed on Runway 1 ;in queue for 0 units
17: Plane 13 took off on Runway 2 ;in queue for 1 units

Plane 15 requesting permission to land.
Plane 16 requesting permission to land.
Plane 17 requesting permission to takeoff.
18: Plane 15 landed on Runway 1 ;in queue for 0 units
18: Plane 16 landed on Runway 2 ;in queue for 0 units

Plane 18 requesting permission to land.
19: Plane 18 landed on Runway 1 ;in queue for 0 units
19: Plane 17 took off on Runway 2 ;in queue for 1 units

20: Runway is idle.

Simulation has concluded after 20 units.
Total number of planes processed: 18
Number of planes landed: 11
Number of planes taken off: 7
```

```
Simulation has concluded after 20 units.  
Total number of planes processed: 18  
Number of planes landed: 11  
Number of planes taken off: 7  
Number left ready to land: 0  
Number left ready to take off: 0  
Percentage of time runway idle: 40.000000  
Average wait time to land: 0.000000  
Average wait time to take off: 0.285714
```

```
C:\Users\ ani \Desktop\Computer\Isa 2 project>
```