L20 solution

1. If the considered system is stable

Utilization

Utilization of a customer class at the selected station. The utilization of a delay station is the average number of customers in the station (it may be greater than 1).

*	*Aggregate*	B	P	A	W
Station1	0.6521	0.3334	0.2500	0.0321	0.0366
Station2	0.6631	0.5001	0.0500	0.0642	0.0489
Station3	0.3669	0.1667	0.0750	0.0642	0.0611
Terminal	24.2794	0.0000	0.0000	9.6225	14.6569

The system is stable because the Utilization is less than one for all stations.

2. The average system response time per class

System Response Time

The global aggregate is the "System Response Time" and is obtained weighting the aggregated values by the relative per-class throughput.
A: This value of System Response Time **includes** the Residence Time of the Reference Station.
B: This value of System Response Time **does NOT include** the Residence Time of the Reference Station.
Notice: For **open classes** the Reference Station always coincides with the arrival process. Thus the **B** values are not computed.

*	*Aggregate*	B	P	A	W
A	--	16.1796	19.6701	311.7689	614.0466
B	--	--	--	11.7689	14.0466

3. The throughput of the closed classes

Throughput

Throughput of each class for each station. System Throughput is the completion rate of the **Reference Station**.

*	*Aggregate*	B	P	A	W
System	0.2732	0.1667	0.0500	0.0321	0.0244
Station1	0.2732	0.1667	0.0500	0.0321	0.0244
Station2	0.2732	0.1667	0.0500	0.0321	0.0244
Station3	0.2732	0.1667	0.0500	0.0321	0.0244
Terminal	0.2732	0.1667	0.0500	0.0321	0.0244

4. The average number of jobs of the open classes

Number of Customers

Average number of customers for each class at each station.

*	*Aggregate*	B	P	A	W
Aggregate	28.6806	2.6971	0.9835	10.0000	15.0000
Station1	1.8701	0.9569	0.7175	0.0912	0.1044
Station2	1.9541	1.4774	0.1477	0.1861	0.1430
Station3	0.5771	0.2629	0.1183	0.1002	0.0957
Terminal	24.2794	0.0000	0.0000	9.6225	14.6569