

TABLE D.19: Radial Tires Inventory Simulation

Day	Order Receipt	Beg. Inv.	R.N.	Simulated Demand	End. Inv.	Backorders	Order Placed	R.N.	Simulated LT
1	30 ^a	20	56 ^a	5	15	0	YES ^b	49 ^c	2
2		15	74	6	9	0	NO ^d		
3		9	93	8	1	0	NO ^d		
4		31	83	6	25	0	NO		
5		25	39	4	21	0	NO		
6		21	69	5	16	0	NO		
7		16	06	2	14	0	YES	60	3
8	30	14	44	4	10	0	NO		
9		10	81	6	4	0	NO		
10		4	70	6	0	2 ^f	NO		
11		30	50	5	23 ^g	0	NO		
12		23	11	2	21	0	NO		
13		21	28	4	17	0	NO		
14		17	29	4	13	0	YES	48	2
15	30	13	26	4	9	0	NO		
16		9	36	4	5	0	NO		
17		35	07	2	33	0	NO		
18		33	93	8	25	0	NO		
19		25	07	2	23	0	NO		
20		23	66	5	18	0	NO		
Total					302	2	3		

^aRandom number that corresponds to the first simulated demand. As the random number 56 falls within 50 to 69 of the random number interval in Table D.16, the corresponding simulated demand is 5 tires.

^bFirst order was placed as the ending inventory hits the reorder point level of 15 tires.

^cRandom number that corresponds to the first simulated lead time. As the random number 49 falls within 20 to 49 of the random number interval in Table D.17, the corresponding simulated lead time is 2 days.

^dNo orders were placed on days 2 and 3 as there is an outstanding order that was placed on day 1 that has not yet arrived.

^eOrder placed on day 1 for an order quantity of 30 tires was received on day 4 at the expiration of the 2-day lead time.

^fDenotes back order of 2 tires as the demand for 6 tires exceeds the inventory in stock of 4 tires.

^gDenotes the ending inventory after the backorder of 2 tires was filled along with the current demand of 5 tires on day 11.