

NOVA INCORPORATED: B-CASE
OPERATIONAL ANALYSIS OF
THE NEW LOGISTICS SYSTEM

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NOVA MANUFACTURING COMPANY: B-CASE OPERATIONAL ANALYSIS OF THE NEW LOGISTICS SYSTEM

Nova's aggressive actions to build lean and responsive manufacturing and distribution systems have met with only partial success. While the actions made sense conceptually, their implementation has not gone quite as expected. As you observed when operating Nova's factories and distribution centers, there are many "opportunities for improvement."

Currently, regional managers are embarrassed and frustrated by their inability to provide the 95% fill rate that was promised to their customers in 1991 when Nova closed eight regional warehouses. They know that if they order larger quantities of finished product, they will not order as frequently and hence there will not be as many opportunities to run out of stock. But, they realize also that corporate management is evaluating their individual performance based upon return on net assets (RONA), which requires that they hold their cycle stock inventories low.

The central distribution activity is also operating less effectively than had been planned. While there is generally enough inventory in the distribution system to satisfy customer demand, it is frequently in the wrong place. Since local shortages seem to occur in random patterns, it is impossible to predict which parts will be over or under-stocked at any location. Furthermore, although production allocation decisions for Cincinnati and London were made to smooth loads between the factories, the process has not worked nearly as effectively as planned. The manufacturing requirements at the plants vary much more from day-to-day than had been expected, so that there is overtime on one day and idle capacity on the next. Even with substantial investments in information and decision support systems to facilitate the implementation of the Velocity initiatives, the logistics system has not lived up to expectations.

Frustration is not limited to the operating managers. After reviewing the financial performance reports and the on-time delivery statistics, John Fisher and his corporate staff concluded that the current problems had to be ironed out quickly. Fisher commissioned a thorough review of system operations so that facts would be available to determine the best course of action. Fisher recalls that a consultant had warned him that his plans were likely to fail because there was so much variation in all aspects of the system. The consultant told him that because demand in all locations for all parts was quite variable, the basic MRP calculations for inventory requirement and manufacturing capacity utilization, that were the foundation for his planning activity, were fatally flawed. He is now reflecting on the phrase "variability is the enemy" and is wondering how to re-evaluate his system design to account for the presence of this variability.

This case requires you to examine the operating data from Nova's logistics system for sources of variability and to determine how the variability has negatively affected Nova's performance.

Assignment 1.

Table 1 provides data on the average daily demand rates by region for the past year. Begin by constructing a Pareto analysis of the annual demand for each part.

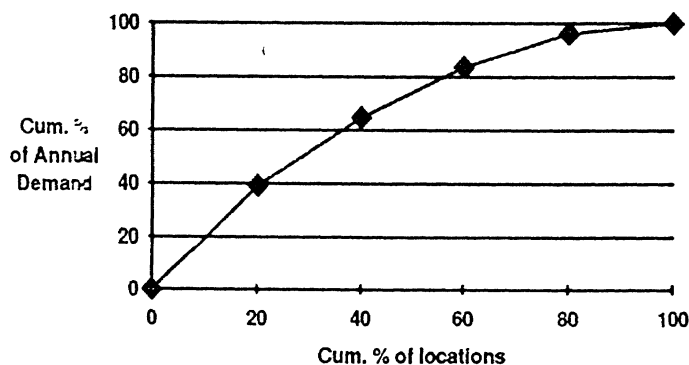
TABLE 1
Average Demand Rates per Day for the Past Year

	Part Numbers										Total
	1	2	3	4	5	6	7	8	9	10	
Region	1	2	3	4	5	6	7	8	9	10	Total
	35.7	19.3	3.1	5.9	1.1	0.6	0.3	0.2	0.1	0.0	66.3
	23.2	14.9	4.2	3.6	4.2	2.3	0.9	0.1	0.1	0.0	53.5
	17.3	11.2	4.4	3.0	3.1	1.3	0.8	0.2	0.2	0.1	41.6
	11.5	7.8	5.1	3.1	1.1	2.9	1.8	1.0	0.5	0.3	35.1
	3.4	2.3	7.5	1.3	0.7	1.3	3.3	2.2	1.3	0.9	24.2
TOTAL	91.1	55.5	24.3	16.9	10.2	8.4	7.1	3.7	2.2	1.3	220.7
% Annual	41.3	25.2	11.0	7.7	4.6	3.8	3.2	1.7	1.0	.6	100
Cum. %	41.3	66.43	77.4	85.1	89.7	93.5	96.8	98.4	99.4	100	

That is, complete the construction of a table for each part that rank orders the demand by region (highest demand rate to lowest) and also gives the percentage of the annual demand. For example, for Part 1, we would obtain the following data:

<u>Pareto Analysis Part 1</u>	
<u>Region</u>	<u>% of Annual Demand</u>
1 (North America)	39.2
2 (Western Europe)	25.5
3 (Eastern Bloc)	19.0
4 (South America)	12.6
5 (Asia Pacific)	3.6

Also for each part number plot a graph of the cumulative percentage of demand as a function of the region's demand, where the regions are ordered from high to low according to their average daily demand rate. For example, we would obtain the following graph for Part 1:



Finally, do a Pareto analysis of the total annual demand in each region and among regions.

How does average demand vary among regions? Note that every part does not account for about the same percentage of demand for each region. How does this fact influence the logistics system's operation and performance?

ASSIGNMENT 2

Analysis has shown that there is considerable variation in the daily demand for each part in each region. Table 2 summarizes the standard deviation of daily demand for each part at each location for the past year.

TABLE 2
STANDARD DEVIATION OF DAILY DEMAND FOR PAST YEAR
Part Numbers

	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>
1	6.0	4.6	3.4	6.1	2.3	1.9	1.4	1.5	0.8	--
2	5.1	4.1	5.0	4.8	4.7	3.5	1.9	0.7	0.9	--
Region 3	4.9	3.6	5.2	3.5	4.3	2.0	2.2	0.9	0.8	0.7
4	3.5	3.6	5.7	3.6	2.3	3.4	3.0	2.2	1.8	1.2
5	4.9	4.4	3.7	1.9	1.3	1.8	4.2	4.3	2.1	2.3

Thus, for example, Part 1, which had an average daily demand rate of 35.7 units per day in Region 1, also had a standard deviation of 6 units per day in that region. The ratio of the standard deviation divided by average demand gives an indication of the relative variation that exists in the demand for each part number in each region. For Part 1 in Region 1, the value is 0.17. This ratio is called the coefficient of variation. The higher its value, the greater the relative variation in the demand process.

Complete the construction of the table whose values are the coefficients of variation for each part number at each location. Also, construct a graph that relates how the coefficient of variation relates to the average daily demand rate. Can you observe any relationship? Once this ratio exceeds 1 it is very difficult to estimate what the average future demand will be much less what the standard deviation of future demand will be. Will Nova have a problem forecasting demand accurately? What is the impact on setting production and safety stock levels?

ASSIGNMENT 3

Next, let's examine the actual demand data for the past 100 days for each part. The data have been assembled in a variety of ways in the Appendix. The first set of data shows the demand for each part on each day in each region. These data are given in both tabular and graphical form. Region 1 is North America, Region 2 is Western Europe, Region 3 is Eastern Europe, Region 4 is South America, and Region 5 is Asia Pacific in all data sets.

Examine the data corresponding to each part number/location combination. How do these data match the annual demand data? That is, has there been a substantial change in either the demand rate or standard deviation in the past 100 days for any part in any region compared to last year's data? How would you characterize the differences between the data for parts with relatively low demand rates and high coefficients of variations and those with relatively higher demand rates and lower coefficients of variation?

ASSIGNMENT 4

Suppose you want to give John Fisher advice on setting inventory levels for each part in each region. The variability exhibited in the historical data implies that proper inventory levels are not easily calculated. More inventory may be needed to achieve high service levels than had been expected.

Describe what inventory rules you would recommend and demonstrate how you would apply them to Part 5 in Region 1. Assume you want to achieve a 95% fill rate. Simulate (by hand or computer) how your policy will work using the 100 days of demand data. Assume the lead time is four days in length and that the annual holding cost rate is .30. What are the average pipeline, cycle and safety stock levels that result from your rules? What would happen if lead times also vary?

ASSIGNMENT 5

The next set of data corresponds to the aggregation of the daily demand activity over all regions. Again examine these data carefully. *How does the coefficient of variation change when we aggregate the regional demand activity? Why does this occur? Suppose you were to have only one stocking location to serve all demand rather than serving customers from the five regional warehouses. How would inventory requirements be affected? Demonstrate your conclusions using data for Part 1.*

ASSIGNMENT 6

Now that you have examined the demand data, reflect on the Nova game play. *Was there enough inventory in the system to react to the demand variability? How does variability affect our ability to meet demand with reasonable levels of inventory? Should John Fisher be concerned with marketing's current customer service promises?*

ASSIGNMENT 7

The consultant also warned John Fisher about the impact variation would have on manufacturing efficiency and effectiveness. *Given what you observed in factories, how does variation affect manufacturing's ability to replenish inventory within prescribed lead times in a reliable manner? What are the sources of variation that affect manufacturing? (Tables 3 and 4 will be helpful here).*

**Table 3
CINCINNATI FACTORY DATA
Run Rates for Parts**

<u>Part Number</u>	<u>Setup time (min)</u>	<u>Run Time per Unit (min)</u>	<u>Avg. Number Units/Day</u>	<u>Scrap Rate</u>
1	5	2.9 (2.7-3.1)	46	.01
2	5	3.1 (2.9-3.3)	28	.01
3	12	3.1 (2.8-3.4)	24	.02
6	15	3.4 (3.0-3.8)	8	.04
8	15	3.7 (3.2-4.2)	4	.04
9	15	4.0 (3.1-4.9)	2	.04

Setup and run time data are for Machine 2, which is the bottleneck machine in Cincinnati.

Breakdown Rates for Machines

<u>Machine</u>	<u>MTBF</u> (minutes)	<u>MTRR</u> (minutes)
1	80	2
2	960	57 (47-67)
3	infinite	

Normal shift length is 480 minutes; Overtime limited to 120 minutes/shift; 1 Repair Crew for factory

Table 4
LONDON FACTORY DATA
Run Rates for Parts

<u>Part Number</u>	<u>Setup time (min)</u>	<u>Run Time</u> per Unit (min)	<u>Avg. Number</u> Units/Day	<u>Scrap Rate</u>
1	20	2.8 (2.7-2.9)	46	.02
2	20	3.0 (2.9-3.1)	28	.02
4	30	3.2 (3.0-3.4)	17	.02
5	30	3.5 (3.2-3.8)	10	.05
7	33	3.6 (3.2-4.0)	7	.05
10	35	4.5 (4.0-5.0)	1	.06

Setup and run time data are for Machine 2 which is the bottleneck machine in London.

Breakdown Rates for Machines

<u>Machine</u>	<u>MTBF</u> (minutes)	<u>MTRR</u> (minutes)
1	70	2.5
2	1600	130 (120-140)
3	infinite	

Normal shift length is 480 minutes; Overtime limited to 120 minutes/shift; 1 Repair Crew for factory

The manufacturing task force decided to produce only a portion of the product line in each factory, as described in Table 5. The production assignments were made both to balance the load between the two factories, and to reduce Nova's exposure to exchange rate fluctuations by aligning production with sources of material and with demand patterns for finished goods.

Table 5
PRODUCTS PRODUCED BY FACTORY

	Products									
	1	2	3	4	5	6	7	8	9	10
Cincinnati	X	X	X			X		X	X	
London	X	X		X	X		X			X

Observe that only Parts 1 and 2 were assigned to both factories. Parts 3 through 10 were assigned to a single factory to minimize tooling, fixturing, equipment, and engineering costs. Furthermore, realize that although both factories produce both Parts 1 and 2, the demand from North America and South America is normally serviced by Cincinnati while the remaining regions are serviced out of London.

The third set of data in the Appendix show how the demand in each region combined to form the manufacturing load on Cincinnati (Factory A) and London (Factory B) over the past 100 days. For example, the day 1 demand for Part 1 for North America was 37 units and for South America was 15 units. Since Cincinnati supplies Part 1 for only these regions, the day 1 demand for Part 1 in Cincinnati is 52 in the data. (It is informative to compare the coefficient of variation of daily demand for Parts 1 and 2 for both factories with those statistics calculated previously. What observations can you make?)

These factory demands are next transformed to production capacity requirements in a Daily Production Minutes report. To derive these data, we combined the run-time per unit data for each factory, which are found in Tables 3 and 4, with the Daily Historical Demand requirements data. For example, consider the total day 1 demand for Part 1 at Cincinnati, which is 52 units. Since the average time to produce a unit of Part 1 at Cincinnati is 2.9 minutes, a total of 150.8 minutes of run time is expected there (ignoring set-up time).

The total daily production minutes required for all parts produced in each factory is also provided. Observe that the average daily required production minutes is about the same at each factory, 346.75 minutes versus 332.69 minutes. This occurs because the production was allocated so that the projected average daily production minutes would be approximately equal in these two facilities.

Realize that these numbers will not be the actual daily production minutes at each factory unless each region orders all parts on a daily basis. Because of lot sizing rules the actual daily requirements will fluctuate more than these data suggest. To see this, suppose the following reorder points (ROP) and order-up-to levels (OUTL) are used in North America and South America for Part 1, and that we begin servicing demand in each location with the on-hand stock (OHS) shown below in Table 6.

Table 6.
Reorder Parameters for Part 1

<i>Part 1</i>			
	<u>ROP</u>	<u>OUTL</u>	<u>OHS</u>
N. America	200	300	220
S. America	75	175	130

Furthermore, Cincinnati factory's production is closely linked with incoming orders from the regions. For manufacturing efficiency, the minimum production lot size for Part 1 is 200 units, which is about what is needed to satisfy one order from both North and South America. Initially, the Cincinnati warehouse has 100 units of Part 1 on-hand. Factory production orders are released on a day when the projected end of the day stock would be 50 units or less.

Construct tables of orders for the North and South American regional distribution centers for Part 1 and for the required daily production minutes for Part 1 for the Cincinnati factory given these lot sizing rules. What observations can you make?

ASSIGNMENT 8

The distribution task force has just completed its analysis of material flows from the central warehouses to each of the 5 regional distribution centers. The purpose of the study was to establish what activities were being performed, how long they took, and what they cost. They made some startling discoveries.

First, they found that the communications and software systems normally caused a delay of one day in the picking and packing cycles experienced in both the Cincinnati and London warehouses. Second, more than three quarters of the orders remained in the warehouses one day after they were picked before they were packed for shipment. Third, once received in the regional warehouses, material often waited a day or more before it became available for shipping to meet customer demand.

In combination, current operational practices substantially lengthened the lead time from the receipt of a resupply request at a central warehouse to the time that regional warehouses were in a position to ship inventory. By altering their processes using improved software and operational practices and working closely with their transportation provider, the task team believes that it is possible to reduce lead times to the levels given in Table 7.

Table 7.
Revised Estimates For Lead Time From Central To Regional Warehouses

		<i>From Central Warehouse</i>			
		North America		Europe	
		Min. (Days)	Max. (Days)	Min. (Days)	Max. (Days)
<i>To Regions</i>	N. America				
	regular	2	3	2	4
	expedite	1	1	1	2
	Europe				
	regular	2	4	2	3
	expedite	1	2	2	3
	Eastern Bloc				
	regular	3	5	2	4
	expedite	2	3	1	2
	S. America				
	regular	3	5	3	5
	expedite	2	2	2	2
	Asia/Pacific				
	regular	3	4	3	5
expedite	1	2	1	2	

What impact could these operational changes and their affect on lead times have on inventory requirements and customer service?

CONCLUSION

You have examined operational data and observed how variability and lot sizing rules affect target inventory levels and production requirements. You also observed that current processes and practices have caused lead times for shipping material to regional warehouses to be much longer than necessary. *Summarize your observations for John Fisher.*

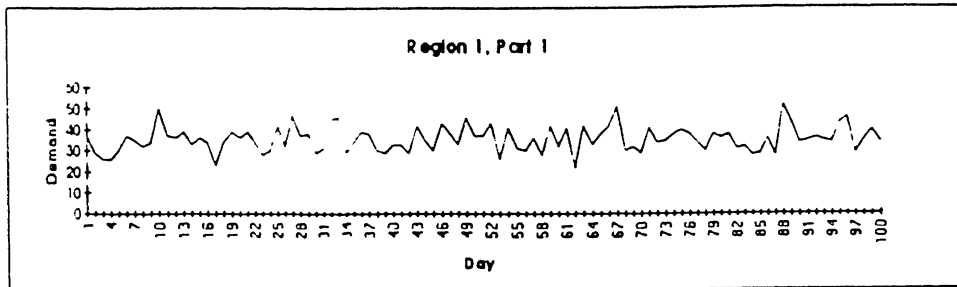
Appendix
(Demand by Part by Region)

Historical Demands

Region: 1
Part: 1

Std Dev: 5.9755
Mean: 35.4800

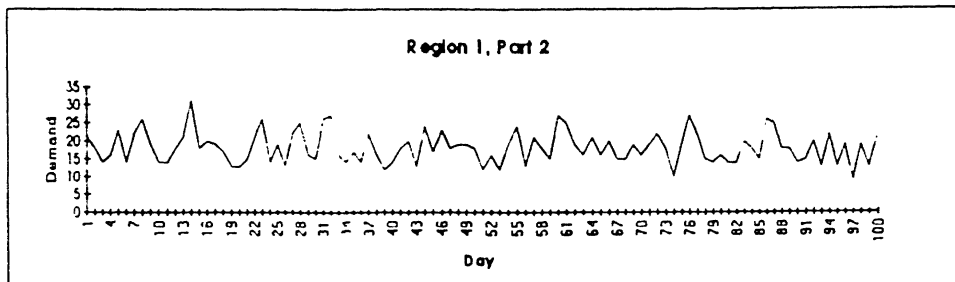
Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	37.00	21	39.00	41	33.00	61	41.00	81	38.00
2	29.00	22	34.00	42	29.00	62	22.00	82	31.00
3	26.00	23	28.00	43	42.00	63	42.00	83	32.00
4	26.00	24	33.00	44	35.00	64	33.00	84	28.00
5	30.00	25	42.00	45	30.00	65	38.00	85	29.00
6	37.00	26	22.00	46	43.00	66	42.00	86	36.00
7	35.00	27	27.00	47	38.00	67	51.00	87	28.00
8	32.00	28	17.00	48	33.00	68	30.00	88	52.00
9	34.00	29	38.00	49	46.00	69	32.00	89	44.00
10	50.00	30	29.00	50	37.00	70	29.00	90	34.00
11	37.00	31	31.00	51	37.00	71	41.00	91	35.00
12	36.00	32	45.00	52	43.00	72	34.00	92	36.00
13	39.00	33	48.00	53	26.00	73	35.00	93	36.00
14	33.00	34	29.00	54	41.00	74	38.00	94	34.00
15	36.00	35	34.00	55	31.00	75	40.00	95	43.00
16	34.00	36	39.00	56	30.00	76	38.00	96	46.00
17	23.00	37	38.00	57	36.00	77	34.00	97	29.00
18	34.00	38	33.00	58	28.00	78	30.00	98	35.00
19	39.00	39	29.00	59	42.00	79	38.00	99	40.00
20	36.00	40	33.00	60	32.00	80	36.00	100	34.00



Region: 1
Part: 2

Std Dev: 4.3584
Mean: 18.1200

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	21.00	21	9.00	41	18.00	61	25.00	81	14.00
2	18.00	22	21.00	42	20.00	62	19.00	82	14.00
3	14.00	23	25.00	43	13.00	63	15.00	83	20.00
4	16.00	24	9.00	44	24.00	64	21.00	84	16.00
5	23.00	25	9.00	45	17.00	65	16.00	85	15.00
6	14.00	26	17.00	46	23.00	66	20.00	86	26.00
7	22.00	27	23.00	47	19.00	67	15.00	87	25.00
8	26.00	28	15.00	48	19.00	68	15.00	88	18.00
9	19.00	29	11.00	49	19.00	69	19.00	89	18.00
10	14.00	30	9.00	50	18.00	70	16.00	90	14.00
11	14.00	31	25.00	51	12.00	71	19.00	91	15.00
12	18.00	32	17.00	52	16.00	72	22.00	92	20.00
13	21.00	33	9.00	53	12.00	73	18.00	93	13.00
14	31.00	34	9.00	54	19.00	74	10.00	94	22.00
15	18.00	35	7.00	55	24.00	75	19.00	95	13.00
16	20.00	36	9.00	56	13.00	76	27.00	96	19.00
17	19.00	37	22.00	57	21.00	77	22.00	97	9.00
18	17.00	38	15.00	58	18.00	78	15.00	98	19.00
19	13.00	39	11.00	59	15.00	79	14.00	99	13.00
20	13.00	40	9.00	60	27.00	80	16.00	100	22.00



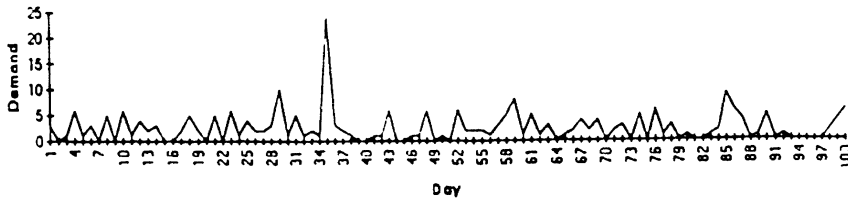
Historical Demands

Region: 1
Part: 3

Std Dev: 3.606
Mean: 2.800

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	3.00	21	5.00	41	1.00	61	5.00	81	0.00
2	0.00	22	0.00	42	1.00	62	1.00	82	0.00
3	1.00	23	6.00	43	6.00	63	3.00	83	1.00
4	6.00	24	1.00	44	0.00	64	0.00	84	2.00
5	1.00	25	4.00	45	0.00	65	1.00	85	9.00
6	3.00	26	2.00	46	1.00	66	2.00	86	6.00
7	0.00	27	2.00	47	1.00	67	4.00	87	4.00
8	5.00	28	3.00	48	6.00	68	2.00	88	0.00
9	0.00	29	10.00	49	0.00	69	4.00	89	1.00
10	6.00	30	1.00	50	1.00	70	0.00	90	5.00
11	1.00	31	5.00	51	0.00	71	2.00	91	0.00
12	4.00	32	1.00	52	6.00	72	3.00	92	1.00
13	2.00	33	2.00	53	2.00	73	0.00	93	0.00
14	3.00	34	1.00	54	2.00	74	5.00	94	0.00
15	0.00	35	24.00	55	2.00	75	0.00	95	0.00
16	0.00	36	3.00	56	1.00	76	6.00	96	0.00
17	2.00	37	2.00	57	3.00	77	1.00	97	0.00
18	5.00	38	1.00	58	5.00	78	3.00	98	2.00
19	2.00	39	0.00	59	8.00	79	0.00	99	4.00
20	0.00	40	0.00	60	1.00	80	1.00	100	6.00

Region 1, Part 3

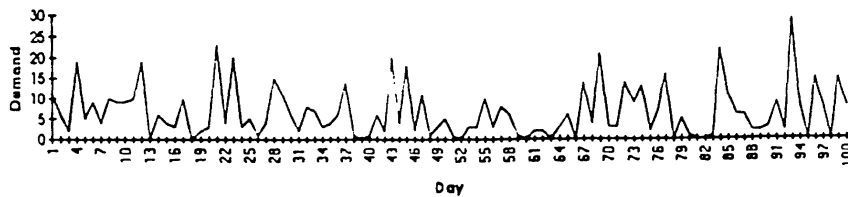


Region: 1
Part: 4

Std Dev: 2.784
Mean: 5.600

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	11.00	21	23.00	41	6.00	61	2.00	81	0.00
2	6.00	22	4.00	42	2.00	62	2.00	82	0.00
3	2.00	23	20.00	43	20.00	63	0.00	83	1.00
4	19.00	24	3.00	44	4.00	64	3.00	84	22.00
5	5.00	25	5.00	45	18.00	65	6.00	85	11.00
6	9.00	26	1.00	46	2.00	66	0.00	86	6.00
7	4.00	27	4.00	47	11.00	67	14.00	87	6.00
8	10.00	28	15.00	48	1.00	68	4.00	88	2.00
9	9.00	29	11.00	49	3.00	69	21.00	89	2.00
10	9.00	30	6.00	50	5.00	70	3.00	90	3.00
11	10.00	31	2.00	51	1.00	71	3.00	91	9.00
12	19.00	32	9.00	52	0.00	72	14.00	92	2.00
13	0.00	33	7.00	53	3.00	73	9.00	93	29.00
14	6.00	34	3.00	54	3.00	74	13.00	94	8.00
15	4.00	35	4.00	55	10.00	75	2.00	95	0.00
16	3.00	36	6.00	56	3.00	76	7.00	96	15.00
17	10.00	37	14.00	57	8.00	77	16.00	97	8.00
18	0.00	38	1.00	58	6.00	78	0.00	98	0.00
19	2.00	39	0.00	59	1.00	79	5.00	99	15.00
20	3.00	40	1.00	60	0.00	80	1.00	100	8.00

Region 1, Part 4

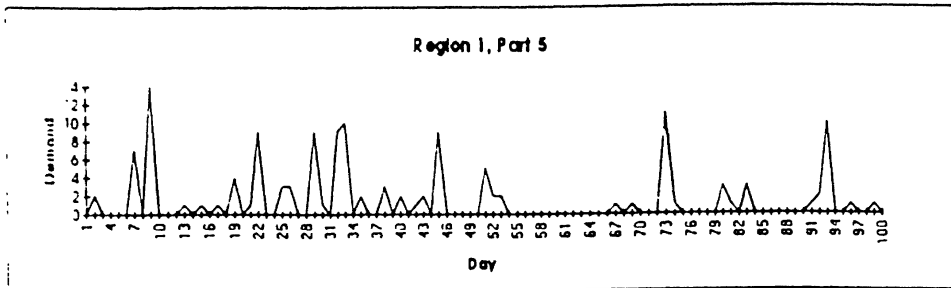


Historical Demand

Region: 1
Part: 5

Std Dev: 2.8846
Mean: 1.3700

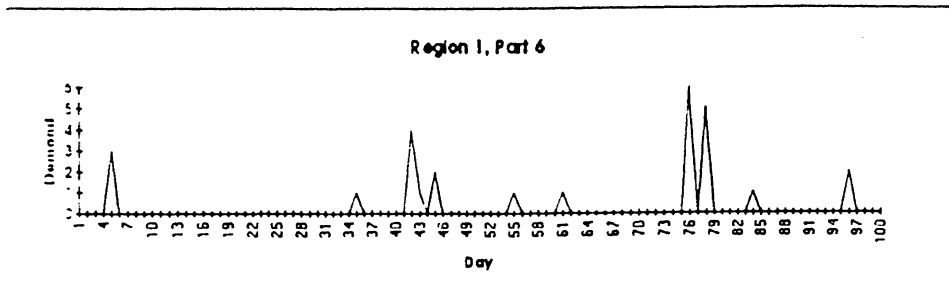
Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	0.00	21	1.00	41	0.00	61	0.00	81	1.00
2	2.00	22	9.00	42	1.00	62	0.00	82	0.00
3	0.00	23	0.00	43	2.00	63	0.00	83	3.00
4	0.00	24	0.00	44	0.00	64	0.00	84	0.00
5	0.00	25	3.00	45	9.00	65	0.00	85	0.00
6	0.00	26	3.00	46	0.00	66	0.00	86	0.00
7	7.00	27	9.00	47	0.00	67	1.00	87	0.00
8	0.00	28	9.00	48	0.00	68	0.00	88	0.00
9	14.00	29	9.00	49	0.00	69	1.00	89	0.00
10	0.00	30	1.00	50	0.00	70	0.00	90	0.00
11	0.00	31	0.00	51	5.00	71	0.00	91	1.00
12	0.00	32	9.00	52	2.00	72	0.00	92	2.00
13	1.00	33	10.00	53	2.00	73	11.00	93	10.00
14	0.00	34	0.00	54	0.00	74	1.00	94	0.00
15	1.00	35	2.00	55	0.00	75	0.00	95	0.00
16	0.00	36	0.00	56	0.00	76	0.00	96	1.00
17	1.00	37	0.00	57	0.00	77	0.00	97	0.00
18	0.00	38	3.00	58	0.00	78	0.00	98	0.00
19	4.00	39	0.00	59	0.00	79	0.00	99	1.00
20	0.00	40	2.00	60	0.00	80	3.00	100	0.00



Region: 1
Part: 6

Std Dev: 0.9625
Mean: 1.2700

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	0.00	21	0.00	41	0.00	61	1.00	81	0.00
2	0.00	22	0.00	42	4.00	62	0.00	82	0.00
3	0.00	23	0.00	43	1.00	63	0.00	83	0.00
4	0.00	24	0.00	44	0.00	64	0.00	84	1.00
5	0.00	25	0.00	45	2.00	65	0.00	85	0.00
6	0.00	26	0.00	46	0.00	66	0.00	86	0.00
7	0.00	27	0.00	47	0.00	67	0.00	87	0.00
8	0.00	28	0.00	48	0.00	68	0.00	88	0.00
9	0.00	29	0.00	49	0.00	69	0.00	89	0.00
10	0.00	30	0.00	50	0.00	70	0.00	90	0.00
11	0.00	31	0.00	51	0.00	71	0.00	91	0.00
12	0.00	32	0.00	52	0.00	72	0.00	92	0.00
13	0.00	33	0.00	53	0.00	73	0.00	93	0.00
14	0.00	34	0.00	54	0.00	74	0.00	94	0.00
15	0.00	35	1.00	55	1.00	75	0.00	95	0.00
16	0.00	36	0.00	56	0.00	76	6.00	96	2.00
17	0.00	37	0.00	57	0.00	77	0.00	97	0.00
18	0.00	38	0.00	58	0.00	78	5.00	98	0.00
19	0.00	39	0.00	59	0.00	79	0.00	99	0.00
20	0.00	40	0.00	60	0.00	80	0.00	100	0.00

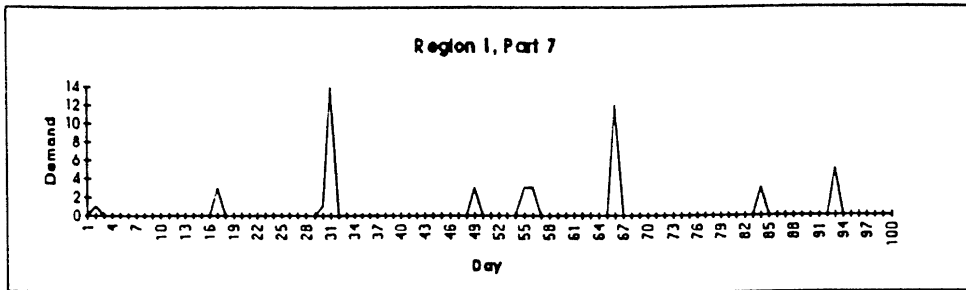


Historical Demands

Region: 1
Part: 7

Std Dev: 1.9821
Mean: 0.4800

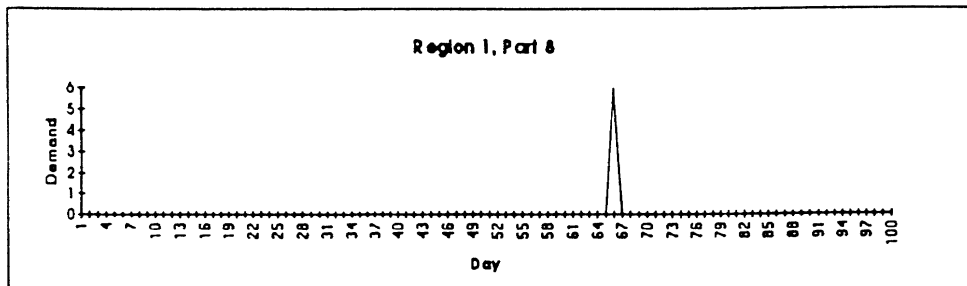
Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	0.00	21	0.00	41	0.00	61	0.00	81	0.00
2	1.00	22	0.00	42	0.00	62	0.00	82	0.00
3	0.00	23	0.00	43	0.00	63	0.00	83	0.00
4	0.00	24	0.00	44	0.00	64	0.00	84	3.00
5	0.00	25	0.00	45	0.00	65	0.00	85	0.00
6	0.00	26	0.00	46	0.00	66	12.00	86	0.00
7	3.00	27	0.00	47	0.00	67	0.00	87	0.00
8	0.00	28	0.00	48	0.00	68	0.00	88	0.00
9	0.00	29	0.00	49	3.00	69	0.00	89	0.00
10	0.00	30	1.00	50	0.00	70	0.00	90	0.00
11	0.00	31	14.00	51	0.00	71	0.00	91	0.00
12	0.00	32	0.00	52	0.00	72	0.00	92	0.00
13	0.00	33	0.00	53	0.00	73	0.00	93	5.00
14	0.00	34	0.00	54	0.00	74	0.00	94	0.00
15	0.00	35	0.00	55	3.00	75	0.00	95	0.00
16	0.00	36	0.00	56	3.00	76	0.00	96	0.00
17	3.00	37	0.00	57	0.00	77	0.00	97	0.00
18	0.00	38	0.00	58	0.00	78	0.00	98	0.00
19	0.00	39	0.00	59	0.00	79	0.00	99	0.00
20	0.00	40	0.00	60	0.00	80	0.00	100	0.00



Region: 1
Part: 8

Std Dev: 0.6000
Mean: 0.0500

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	0.00	21	0.00	41	0.00	61	0.00	81	0.00
2	0.00	22	0.00	42	0.00	62	0.00	82	0.00
3	0.00	23	0.00	43	0.00	63	0.00	83	0.00
4	0.00	24	0.00	44	0.00	64	0.00	84	0.00
5	0.00	25	0.00	45	0.00	65	0.00	85	0.00
6	0.00	26	0.00	46	0.00	66	0.00	86	0.00
7	0.00	27	0.00	47	0.00	67	0.00	87	0.00
8	0.00	28	0.00	48	0.00	68	0.00	88	0.00
9	0.00	29	0.00	49	0.00	69	0.00	89	0.00
10	0.00	30	0.00	50	0.00	70	0.00	90	0.00
11	0.00	31	0.00	51	0.00	71	0.00	91	0.00
12	0.00	32	0.00	52	0.00	72	0.00	92	0.00
13	0.00	33	0.00	53	0.00	73	0.00	93	0.00
14	0.00	34	0.00	54	0.00	74	0.00	94	0.00
15	0.00	35	0.00	55	0.00	75	0.00	95	0.00
16	0.00	36	0.00	56	0.00	76	0.00	96	0.00
17	0.00	37	0.00	57	0.00	77	0.00	97	0.00
18	0.00	38	0.00	58	0.00	78	0.00	98	0.00
19	0.00	39	0.00	59	0.00	79	0.00	99	0.00
20	0.00	40	0.00	60	0.00	80	0.00	100	0.00

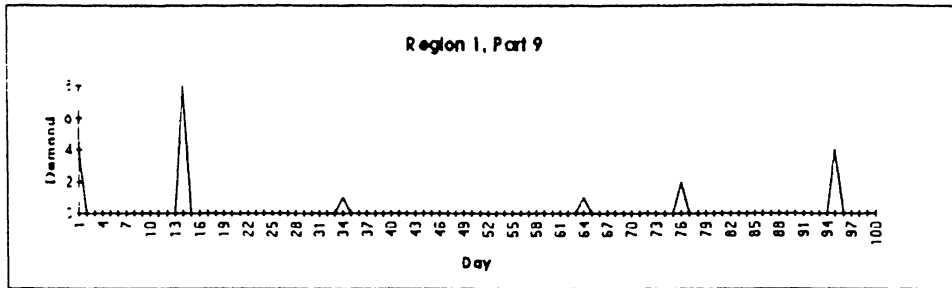


Historical Demands

Region: 1
Part: 9

Std Dev: 0.9949
Mean: 0.2000

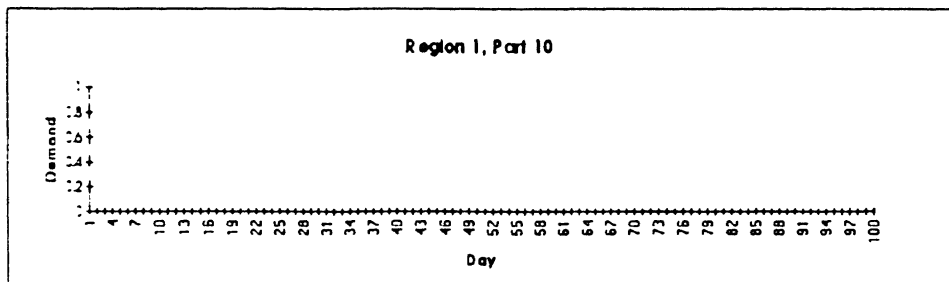
Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	4.00	21	0.00	41	0.00	61	0.00	81	0.00
2	0.00	22	0.00	42	0.00	62	0.00	82	0.00
3	0.00	23	0.00	43	0.00	63	0.00	83	0.00
4	0.00	24	0.00	44	0.00	64	1.00	84	0.00
5	0.00	25	0.00	45	0.00	65	0.00	85	0.00
6	0.00	26	0.00	46	0.00	66	0.00	86	0.00
7	0.00	27	0.00	47	0.00	67	0.00	87	0.00
8	0.00	28	0.00	48	0.00	68	0.00	88	0.00
9	0.00	29	0.00	49	0.00	69	0.00	89	0.00
10	0.00	30	0.00	50	0.00	70	0.00	90	0.00
11	0.00	31	0.00	51	0.00	71	0.00	91	0.00
12	0.00	32	0.00	52	0.00	72	0.00	92	0.00
13	0.00	33	0.00	53	0.00	73	0.00	93	0.00
14	8.00	34	1.00	54	0.00	74	0.00	94	0.00
15	0.00	35	0.00	55	0.00	75	0.00	95	4.00
16	0.00	36	0.00	56	0.00	76	2.00	96	0.00
17	0.00	37	0.00	57	0.00	77	0.00	97	0.00
18	0.00	38	0.00	58	0.00	78	0.00	98	0.00
19	0.00	39	0.00	59	0.00	79	0.00	99	0.00
20	0.00	40	0.00	60	0.00	80	0.00	100	0.00



Region: 1
Part: 10

Std Dev: 0.0000
Mean: 0.0000

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	0.00	21	0.00	41	0.00	61	0.00	81	0.00
2	0.00	22	0.00	42	0.00	62	0.00	82	0.00
3	0.00	23	0.00	43	0.00	63	0.00	83	0.00
4	0.00	24	0.00	44	0.00	64	0.00	84	0.00
5	0.00	25	0.00	45	0.00	65	0.00	85	0.00
6	0.00	26	0.00	46	0.00	66	0.00	86	0.00
7	0.00	27	0.00	47	0.00	67	0.00	87	0.00
8	0.00	28	0.00	48	0.00	68	0.00	88	0.00
9	0.00	29	0.00	49	0.00	69	0.00	89	0.00
10	0.00	30	0.00	50	0.00	70	0.00	90	0.00
11	0.00	31	0.00	51	0.00	71	0.00	91	0.00
12	0.00	32	0.00	52	0.00	72	0.00	92	0.00
13	0.00	33	0.00	53	0.00	73	0.00	93	0.00
14	0.00	34	0.00	54	0.00	74	0.00	94	0.00
15	0.00	35	0.00	55	0.00	75	0.00	95	0.00
16	0.00	36	0.00	56	0.00	76	0.00	96	0.00
17	0.00	37	0.00	57	0.00	77	0.00	97	0.00
18	0.00	38	0.00	58	0.00	78	0.00	98	0.00
19	0.00	39	0.00	59	0.00	79	0.00	99	0.00
20	0.00	40	0.00	60	0.00	80	0.00	100	0.00

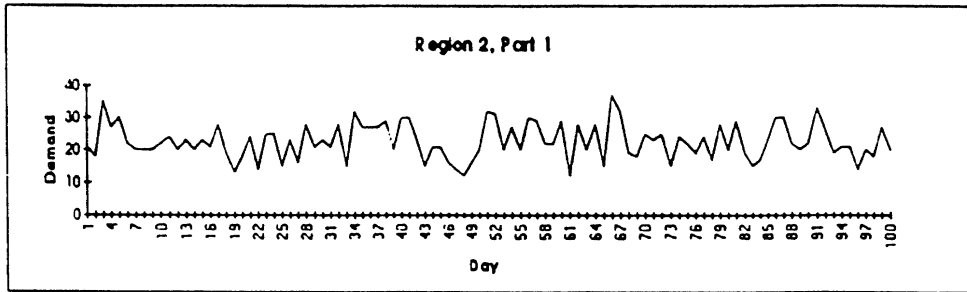


Historical Demands

Region: 2
Part: 1

Std Dev: 6.4844
Mean: 22.6100

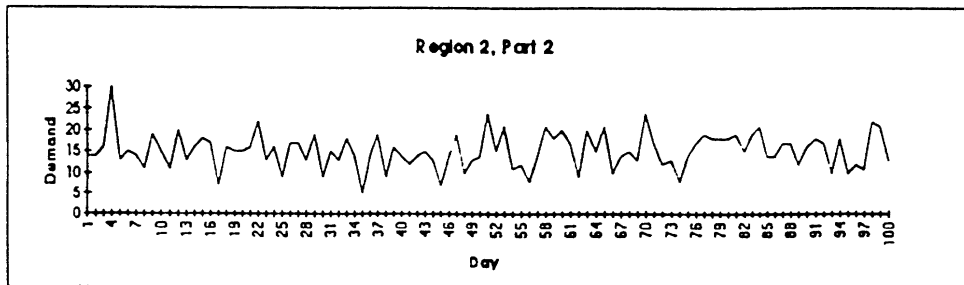
Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	21.00	21	24.00	41	30.00	61	12.00	81	29.00
2	18.00	22	14.00	42	23.00	62	28.00	82	19.00
3	35.00	23	25.00	43	15.00	63	20.00	83	15.00
4	27.00	24	25.00	44	21.00	64	28.00	84	17.00
5	30.00	25	15.00	45	21.00	65	15.00	85	23.00
6	22.00	26	23.00	46	16.00	66	37.00	86	30.00
7	20.00	27	16.00	47	14.00	67	32.00	87	30.00
8	20.00	28	28.00	48	12.00	68	19.00	88	22.00
9	20.00	29	21.00	49	16.00	69	18.00	89	20.00
10	22.00	30	23.00	50	20.00	70	25.00	90	22.00
11	24.00	31	21.00	51	32.00	71	23.00	91	33.00
12	20.00	32	28.00	52	31.00	72	25.00	92	26.00
13	23.00	33	15.00	53	20.00	73	15.00	93	19.00
14	20.00	34	32.00	54	27.00	74	24.00	94	21.00
15	23.00	35	27.00	55	20.00	75	22.00	95	21.00
16	21.00	36	27.00	56	30.00	76	19.00	96	14.00
17	28.00	37	27.00	57	29.00	77	24.00	97	20.00
18	19.00	38	29.00	58	22.00	78	17.00	98	18.00
19	13.00	39	20.00	59	22.00	79	28.00	99	27.00
20	18.00	40	30.00	60	29.00	80	20.00	100	20.00



Region: 2
Part: 2

Std Dev: 4.1390
Mean: 15.2000

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	14.00	21	16.00	41	12.00	61	17.00	81	19.00
2	14.00	22	22.00	42	14.00	62	9.00	82	15.00
3	16.00	23	13.00	43	15.00	63	20.00	83	19.00
4	30.00	24	16.00	44	13.00	64	15.00	84	21.00
5	13.00	25	9.00	45	7.00	65	21.00	85	14.00
6	15.00	26	17.00	46	14.00	66	10.00	86	14.00
7	14.00	27	17.00	47	19.00	67	14.00	87	17.00
8	11.00	28	13.00	48	10.00	68	15.00	88	17.00
9	19.00	29	19.00	49	13.00	69	13.00	89	12.00
10	15.00	30	9.00	50	14.00	70	24.00	90	16.00
11	11.00	31	15.00	51	24.00	71	17.00	91	18.00
12	20.00	32	13.00	52	15.00	72	12.00	92	17.00
13	13.00	33	18.00	53	21.00	73	13.00	93	10.00
14	16.00	34	14.00	54	11.00	74	8.00	94	18.00
15	18.00	35	5.00	55	12.00	75	14.00	95	10.00
16	17.00	36	14.00	56	8.00	76	17.00	96	12.00
17	7.00	37	19.00	57	14.00	77	19.00	97	11.00
18	16.00	38	9.00	58	21.00	78	18.00	98	22.00
19	15.00	39	16.00	59	18.00	79	18.00	99	21.00
20	15.00	40	14.00	60	20.00	80	18.00	100	13.00

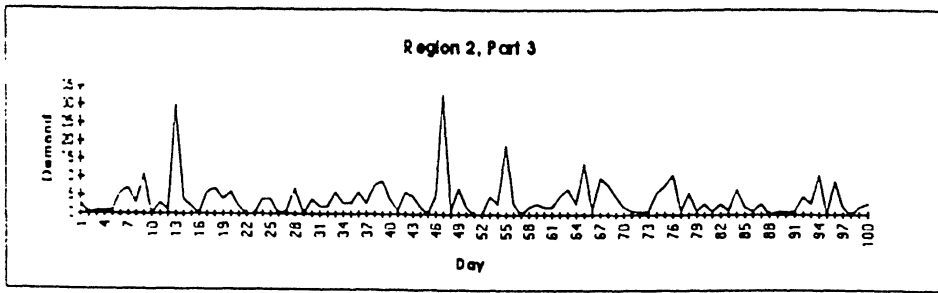


Historical Demands

Region: 2
Part: 3

Std Dev: 6.1979
Mean: 4.1500

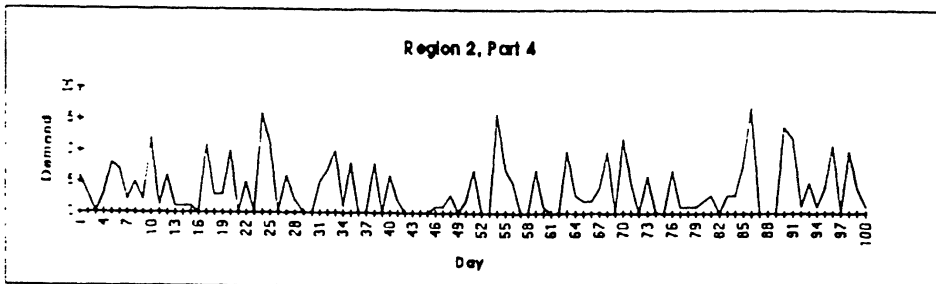
Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	3.00	21	2.00	41	1.00	61	2.00	81	1.00
2	0.00	22	0.00	42	6.00	62	5.00	82	3.00
3	1.00	23	0.00	43	5.00	63	7.00	83	1.00
4	1.00	24	4.00	44	2.00	64	3.00	84	7.00
5	1.00	25	4.00	45	0.00	65	14.00	85	2.00
6	5.00	26	0.00	46	5.00	66	1.00	86	1.00
7	7.00	27	1.00	47	33.00	67	10.00	87	3.00
8	3.00	28	7.00	48	1.00	68	8.00	88	0.00
9	11.00	29	0.00	49	7.00	69	5.00	89	1.00
10	0.00	30	4.00	50	2.00	70	2.00	90	1.00
11	3.00	31	2.00	51	0.00	71	1.00	91	1.00
12	1.00	32	2.00	52	0.00	72	1.00	92	5.00
13	30.00	33	6.00	53	5.00	73	1.00	93	3.00
14	4.00	34	3.00	54	3.00	74	6.00	94	11.00
15	2.00	35	3.00	55	19.00	75	8.00	95	0.00
16	0.00	36	6.00	56	3.00	76	11.00	96	9.00
17	6.00	37	3.00	57	0.00	77	1.00	97	2.00
18	7.00	38	8.00	58	2.00	78	6.00	98	0.00
19	4.00	39	9.00	59	3.00	79	1.00	99	2.00
20	6.00	40	4.00	60	2.00	80	3.00	100	3.00



Region: 2
Part: 4

Std Dev: 4.3400
Mean: 3.8500

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	5.00	21	0.00	41	2.00	61	0.00	81	3.00
2	3.00	22	5.00	42	0.00	62	0.00	82	0.00
3	2.00	23	0.00	43	0.00	63	10.00	83	3.00
4	3.00	24	16.00	44	0.00	64	3.00	84	3.00
5	8.00	25	11.00	45	0.00	65	2.00	85	8.00
6	7.00	26	0.00	46	1.00	66	2.00	86	17.00
7	2.00	27	6.00	47	1.00	67	4.00	87	0.00
8	5.00	28	2.00	48	3.00	68	10.00	88	0.00
9	2.00	29	0.00	49	0.00	69	0.00	89	0.00
10	12.00	30	0.00	50	2.00	70	12.00	90	14.00
11	1.00	31	5.00	51	7.00	71	5.00	91	12.00
12	6.00	32	7.00	52	0.00	72	0.00	92	1.00
13	1.00	33	10.00	53	0.00	73	6.00	93	5.00
14	1.00	34	1.00	54	16.00	74	0.00	94	1.00
15	1.00	35	8.00	55	7.00	75	0.00	95	4.00
16	0.00	36	0.00	56	5.00	76	7.00	96	11.00
17	11.00	37	0.00	57	0.00	77	1.00	97	0.00
18	3.00	38	8.00	58	0.00	78	1.00	98	10.00
19	3.00	39	0.00	59	7.00	79	1.00	99	4.00
20	10.00	40	6.00	60	1.00	80	2.00	100	1.00

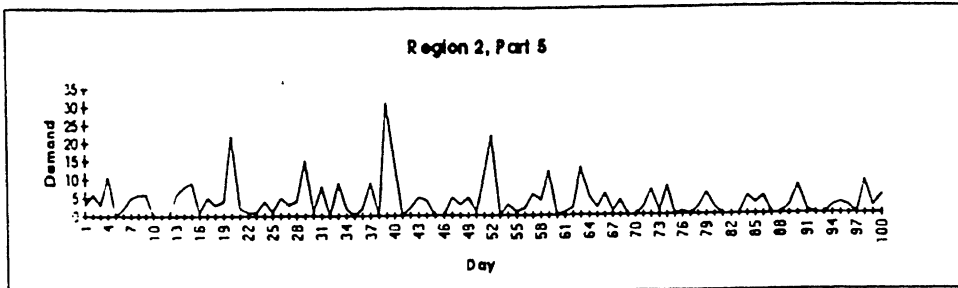


Historical Demands

Region: 2
Part: 5

Std Dev: 6.1663
Mean: 4.0900

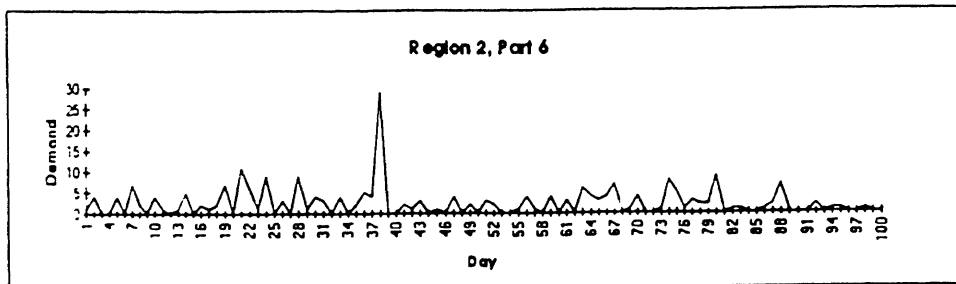
Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	3.00	21	2.00	41	0.00	61	1.00	81	0.00
2	6.00	22	1.00	42	2.00	62	2.00	82	0.00
3	3.00	23	1.00	43	5.00	63	13.00	83	0.00
4	11.00	24	4.00	44	4.00	64	5.00	84	5.00
5	0.00	25	1.00	45	0.00	65	2.00	85	3.00
6	2.00	26	5.00	46	0.00	66	6.00	86	5.00
7	5.00	27	3.00	47	5.00	67	1.00	87	0.00
8	6.00	28	4.00	48	3.00	68	4.00	88	0.00
9	6.00	29	15.00	49	5.00	69	0.00	89	2.00
10	0.00	30	1.00	50	1.00	70	0.00	90	8.00
11	0.00	31	8.00	51	11.00	71	2.00	91	1.00
12	0.00	32	0.00	52	22.00	72	7.00	92	0.00
13	6.00	33	9.00	53	0.00	73	1.00	93	0.00
14	8.00	34	2.00	54	3.00	74	8.00	94	2.00
15	9.00	35	0.00	55	1.00	75	0.00	95	3.00
16	1.00	36	2.00	56	2.00	76	1.00	96	2.00
17	5.00	37	9.00	57	6.00	77	0.00	97	0.00
18	3.00	38	0.00	58	4.00	78	2.00	98	9.00
19	4.00	39	31.00	59	12.00	79	6.00	99	2.00
20	22.00	40	15.00	60	0.00	80	2.00	100	5.00



Region: 2
Part: 6

Std Dev: 3.6982
Mean: 2.4000

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	1.00	21	11.00	41	2.00	61	3.00	81	0.00
2	4.00	22	6.00	42	1.00	62	0.00	82	1.00
3	3.00	23	1.00	43	3.00	63	6.00	83	1.00
4	2.00	24	9.00	44	0.00	64	4.00	84	0.00
5	4.00	25	0.00	45	1.00	65	3.00	85	0.00
6	3.00	26	3.00	46	0.00	66	4.00	86	1.00
7	7.00	27	0.00	47	4.00	67	7.00	87	2.00
8	2.00	28	9.00	48	0.00	68	0.00	88	7.00
9	3.00	29	1.00	49	2.00	69	1.00	89	0.00
10	4.00	30	4.00	50	0.00	70	4.00	90	0.00
11	1.00	31	3.00	51	3.00	71	0.00	91	0.00
12	3.00	32	0.00	52	2.00	72	0.00	92	2.00
13	1.00	33	4.00	53	0.00	73	1.00	93	0.00
14	5.00	34	0.00	54	0.00	74	8.00	94	1.00
15	3.00	35	2.00	55	1.00	75	5.00	95	1.00
16	2.00	36	5.00	56	4.00	76	1.00	96	0.00
17	1.00	37	4.00	57	1.00	77	3.00	97	0.00
18	2.00	38	29.00	58	0.00	78	2.00	98	1.00
19	7.00	39	0.00	59	4.00	79	2.00	99	0.00
20	0.00	40	0.00	60	0.00	80	9.00	100	0.00

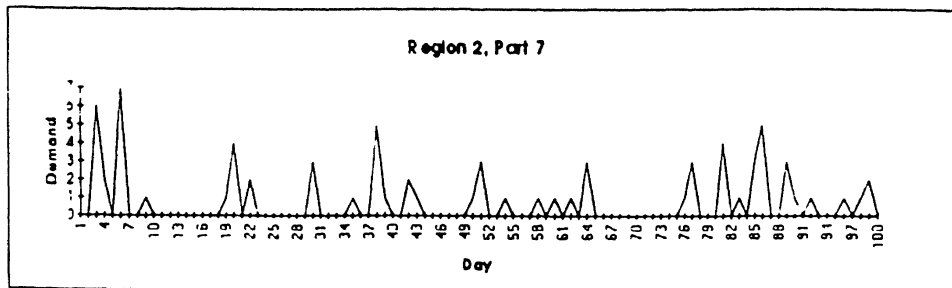


Historical Demands

Region: 2
Part: 7

Std Dev: 1.4203
Mean: 0.7300

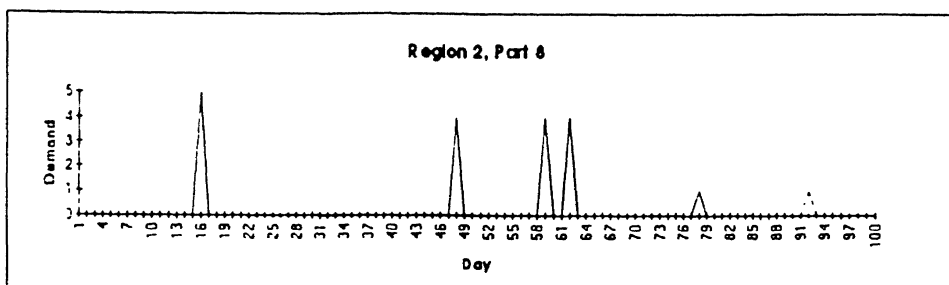
Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	0.00	21	0.00	41	0.00	61	0.00	81	4.00
2	0.00	22	2.00	42	2.00	62	1.00	82	0.00
3	6.00	23	0.00	43	1.00	63	0.00	83	1.00
4	2.00	24	0.00	44	0.00	64	3.00	84	0.00
5	0.00	25	0.00	45	0.00	65	0.00	85	3.00
6	7.00	26	0.00	46	0.00	66	0.00	86	5.00
7	0.00	27	0.00	47	0.00	67	0.00	87	0.00
8	0.00	28	0.00	48	0.00	68	0.00	88	0.00
9	1.00	29	0.00	49	0.00	69	0.00	89	3.00
10	0.00	30	3.00	50	1.00	70	0.00	90	1.00
11	0.00	31	0.00	51	3.00	71	0.00	91	0.00
12	0.00	32	0.00	52	0.00	72	0.00	92	1.00
13	0.00	33	0.00	53	0.00	73	0.00	93	0.00
14	0.00	34	0.00	54	1.00	74	0.00	94	0.00
15	0.00	35	1.00	55	0.00	75	0.00	95	0.00
16	0.00	36	0.00	56	0.00	76	1.00	96	1.00
17	0.00	37	0.00	57	0.00	77	3.00	97	0.00
18	0.00	38	5.00	58	1.00	78	0.00	98	1.00
19	1.00	39	1.00	59	0.00	79	0.00	99	2.00
20	4.00	40	3.00	60	1.00	80	0.00	100	0.00



Region: 2
Part: 8

Std Dev: 0.8492
Mean: 0.1900

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	0.00	21	1.00	41	0.00	61	0.00	81	0.00
2	0.00	22	0.00	42	0.00	62	4.00	82	0.00
3	0.00	23	0.00	43	0.00	63	1.00	83	0.00
4	0.00	24	1.00	44	0.00	64	0.00	84	0.00
5	0.00	25	0.00	45	0.00	65	0.00	85	0.00
6	0.00	26	1.00	46	0.00	66	1.00	86	0.00
7	0.00	27	1.00	47	0.00	67	1.00	87	0.00
8	0.00	28	0.00	48	4.00	68	1.00	88	0.00
9	0.00	29	0.00	49	0.00	69	0.00	89	0.00
10	0.00	30	0.00	50	0.00	70	0.00	90	0.00
11	0.00	31	0.00	51	0.00	71	0.00	91	0.00
12	0.00	32	0.00	52	0.00	72	0.00	92	1.00
13	0.00	33	0.00	53	0.00	73	0.00	93	0.00
14	0.00	34	0.00	54	0.00	74	0.00	94	0.00
15	0.00	35	0.00	55	0.00	75	0.00	95	0.00
16	5.00	36	0.00	56	0.00	76	0.00	96	0.00
17	0.00	37	0.00	57	0.00	77	0.00	97	0.00
18	0.00	38	0.00	58	0.00	78	1.00	98	0.00
19	0.00	39	0.00	59	4.00	79	0.00	99	0.00
20	0.00	40	0.00	60	0.00	80	0.00	100	0.00

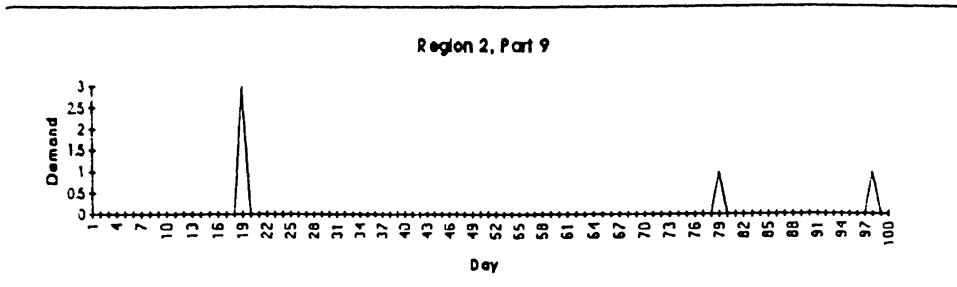


Historical Demands

Region: 2
Part: 9

Std Dev: 0.3296
Mean: 0.0500

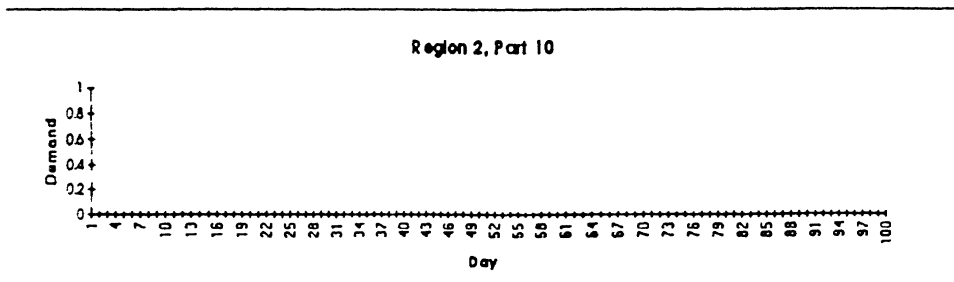
Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	0.00	21	0.00	41	0.00	61	0.00	81	0.00
2	0.00	22	0.00	42	0.00	62	0.00	82	0.00
3	0.00	23	0.00	43	0.00	63	0.00	83	0.00
4	0.00	24	0.00	44	0.00	64	0.00	84	0.00
5	0.00	25	0.00	45	0.00	65	0.00	85	0.00
6	0.00	26	0.00	46	0.00	66	0.00	86	0.00
7	0.00	27	0.00	47	0.00	67	0.00	87	0.00
8	0.00	28	0.00	48	0.00	68	0.00	88	0.00
9	0.00	29	0.00	49	0.00	69	0.00	89	0.00
10	0.00	30	0.00	50	0.00	70	0.00	90	0.00
11	0.00	31	0.00	51	0.00	71	0.00	91	0.00
12	0.00	32	0.00	52	0.00	72	0.00	92	0.00
13	0.00	33	0.00	53	0.00	73	0.00	93	0.00
14	0.00	34	0.00	54	0.00	74	0.00	94	0.00
15	0.00	35	0.00	55	0.00	75	0.00	95	0.00
16	0.00	36	0.00	56	0.00	76	0.00	96	0.00
17	0.00	37	0.00	57	0.00	77	0.00	97	0.00
18	0.00	38	0.00	58	0.00	78	0.00	98	1.00
19	3.00	39	0.00	59	0.00	79	1.00	99	0.00
20	0.00	40	0.00	60	0.00	80	0.00	100	0.00



Region: 2
Part: 10

Std Dev: 0.0000
Mean: 0.0000

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	0.00	21	0.00	41	0.00	61	0.00	81	0.00
2	0.00	22	0.00	42	0.00	62	0.00	82	0.00
3	0.00	23	0.00	43	0.00	63	0.00	83	0.00
4	0.00	24	0.00	44	0.00	64	0.00	84	0.00
5	0.00	25	0.00	45	0.00	65	0.00	85	0.00
6	0.00	26	0.00	46	0.00	66	0.00	86	0.00
7	0.00	27	0.00	47	0.00	67	0.00	87	0.00
8	0.00	28	0.00	48	0.00	68	0.00	88	0.00
9	0.00	29	0.00	49	0.00	69	0.00	89	0.00
10	0.00	30	0.00	50	0.00	70	0.00	90	0.00
11	0.00	31	0.00	51	0.00	71	0.00	91	0.00
12	0.00	32	0.00	52	0.00	72	0.00	92	0.00
13	0.00	33	0.00	53	0.00	73	0.00	93	0.00
14	0.00	34	0.00	54	0.00	74	0.00	94	0.00
15	0.00	35	0.00	55	0.00	75	0.00	95	0.00
16	0.00	36	0.00	56	0.00	76	0.00	96	0.00
17	0.00	37	0.00	57	0.00	77	0.00	97	0.00
18	0.00	38	0.00	58	0.00	78	0.00	98	0.00
19	0.00	39	0.00	59	0.00	79	0.00	99	0.00
20	0.00	40	0.00	60	0.00	80	0.00	100	0.00

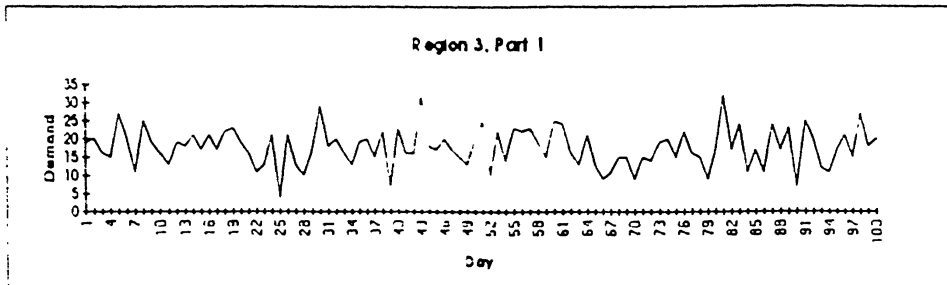


Historical Demands

Region: 3
Part: 1

Std Dev: 5.2673
Mean: 17.6500

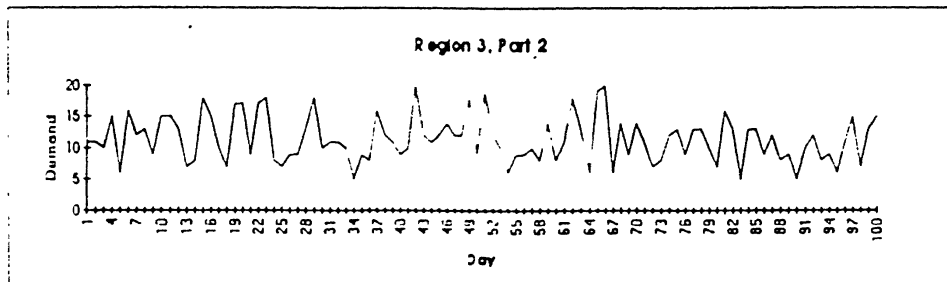
Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	19.00	21	16.00	41	16.00	61	24.00	81	32.00
2	20.00	22	11.00	42	16.00	62	16.00	82	17.00
3	16.00	23	13.00	43	32.00	63	13.00	83	24.00
4	15.00	24	21.00	44	18.00	64	21.00	84	11.00
5	27.00	25	4.00	45	17.00	65	13.00	85	17.00
6	20.00	26	21.00	46	20.00	66	9.00	86	11.00
7	11.00	27	13.00	47	17.00	67	11.00	87	24.00
8	25.00	28	10.00	48	15.00	68	15.00	88	17.00
9	19.00	29	17.00	49	13.00	69	15.00	89	23.00
10	16.00	30	29.00	50	29.00	70	9.00	90	7.00
11	13.00	31	18.00	51	25.00	71	15.00	91	25.00
12	19.00	32	20.00	52	10.00	72	14.00	92	20.00
13	18.00	33	16.00	53	22.00	73	19.00	93	12.00
14	21.00	34	13.00	54	14.00	74	20.00	94	11.00
15	17.00	35	19.00	55	23.00	75	15.00	95	17.00
16	21.00	36	20.00	56	22.00	76	22.00	96	21.00
17	17.00	37	15.00	57	23.00	77	16.00	97	15.00
18	22.00	38	22.00	58	19.00	78	15.00	98	27.00
19	23.00	39	7.00	59	15.00	79	9.00	99	18.00
20	19.00	40	23.00	60	25.00	80	17.00	100	20.00



Region: 3
Part: 2

Std Dev: 3.6960
Mean: 11.4200

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	11.00	21	9.00	41	10.00	61	11.00	81	16.00
2	11.00	22	17.00	42	29.00	62	18.00	82	13.00
3	10.00	23	8.00	43	12.00	63	13.00	83	5.00
4	15.00	24	8.00	44	11.00	64	8.00	84	13.00
5	6.00	25	7.00	45	12.00	65	19.00	85	13.00
6	16.00	26	9.00	46	14.00	66	29.00	86	9.00
7	12.00	27	9.00	47	12.00	67	9.00	87	12.00
8	13.00	28	13.00	48	12.00	68	14.00	88	8.00
9	9.00	29	18.00	49	18.00	69	9.00	89	9.00
10	15.00	30	10.00	50	9.00	70	14.00	90	5.00
11	15.00	31	11.00	51	19.00	71	11.00	91	10.00
12	13.00	32	11.00	52	12.00	72	7.00	92	12.00
13	7.00	33	10.00	53	10.00	73	8.00	93	8.00
14	8.00	34	5.00	54	9.00	74	12.00	94	9.00
15	18.00	35	9.00	55	9.00	75	13.00	95	6.00
16	15.00	36	8.00	56	9.00	76	9.00	96	11.00
17	10.00	37	16.00	57	10.00	77	13.00	97	15.00
18	7.00	38	12.00	58	8.00	78	13.00	98	7.00
19	17.00	39	11.00	59	14.00	79	10.00	99	13.00
20	17.00	40	9.00	60	8.00	80	7.00	100	15.00

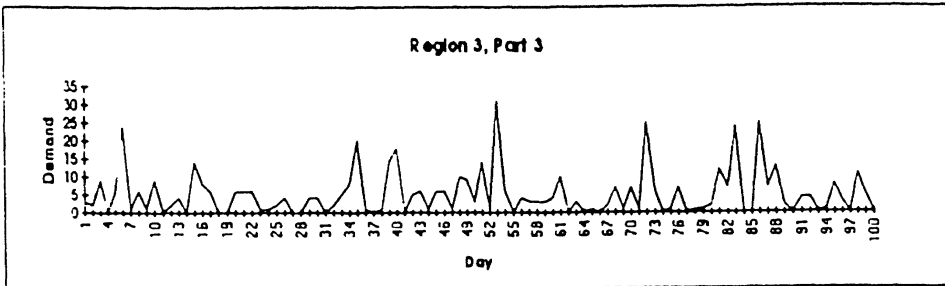


Historical Demands

Region: 3
Part: 3

Std Dev: 6.3903
Mean: 5.1500

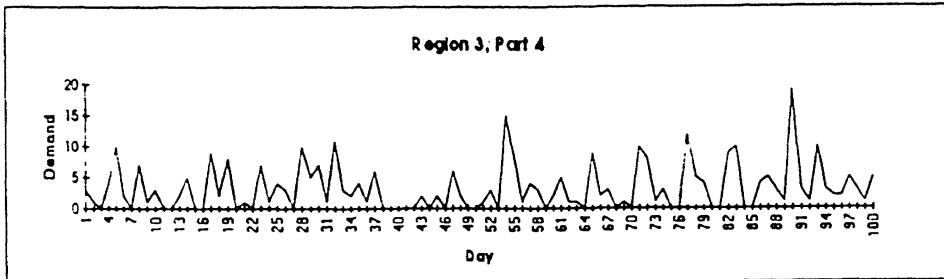
Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	3.00	21	6.00	41	0.00	61	10.00	81	12.00
2	2.00	22	6.00	42	5.00	62	0.00	82	7.00
3	9.00	23	1.00	43	6.00	63	3.00	83	24.00
4	0.00	24	1.00	44	1.00	64	0.00	84	0.00
5	6.00	25	2.00	45	6.00	65	1.00	85	0.00
6	24.00	26	4.00	46	6.00	66	0.00	86	25.00
7	1.00	27	0.00	47	1.00	67	2.00	87	7.00
8	6.00	28	0.00	48	10.00	68	7.00	88	13.00
9	1.00	29	4.00	49	9.00	69	1.00	89	2.00
10	9.00	30	4.00	50	3.00	70	7.00	90	0.00
11	0.00	31	0.00	51	14.00	71	1.00	91	4.00
12	2.00	32	2.00	52	1.00	72	25.00	92	4.00
13	4.00	33	5.00	53	31.00	73	6.00	93	0.00
14	0.00	34	8.00	54	6.00	74	0.00	94	1.00
15	14.00	35	20.00	55	0.00	75	1.00	95	8.00
16	8.00	36	1.00	56	4.00	76	7.00	96	3.00
17	6.00	37	0.00	57	3.00	77	0.00	97	0.00
18	0.00	38	1.00	58	3.00	78	1.00	98	11.00
19	0.00	39	14.00	59	3.00	79	1.00	99	5.00
20	6.00	40	18.00	60	4.00	80	2.00	100	0.00



Region: 3
Part: 4

Std Dev: 3.7601
Mean: 3.2300

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	3.00	21	1.00	41	0.00	61	5.00	81	3.00
2	1.00	22	3.00	42	0.00	62	1.00	82	9.00
3	3.00	23	7.00	43	2.00	63	1.00	83	10.00
4	4.00	24	1.00	44	0.00	64	3.00	84	9.00
5	3.00	25	4.00	45	2.00	65	9.00	85	0.00
6	2.00	26	3.00	46	3.00	66	2.00	86	4.00
7	1.00	27	0.00	47	6.00	67	3.00	87	5.00
8	1.00	28	10.00	48	2.00	68	0.00	88	3.00
9	1.00	29	5.00	49	0.00	69	1.00	89	1.00
10	3.00	30	7.00	50	0.00	70	0.00	90	19.00
11	3.00	31	1.00	51	1.00	71	10.00	91	3.00
12	3.00	32	11.00	52	3.00	72	8.00	92	1.00
13	2.00	33	3.00	53	0.00	73	1.00	93	10.00
14	5.00	34	2.00	54	15.00	74	3.00	94	3.00
15	3.00	35	4.00	55	8.00	75	0.00	95	2.00
16	3.00	36	1.00	56	1.00	76	0.00	96	2.00
17	9.00	37	6.00	57	4.00	77	12.00	97	5.00
18	2.00	38	0.00	58	3.00	78	5.00	98	3.00
19	3.00	39	0.00	59	0.00	79	4.00	99	1.00
20	3.00	40	0.00	60	2.00	80	0.00	100	5.00

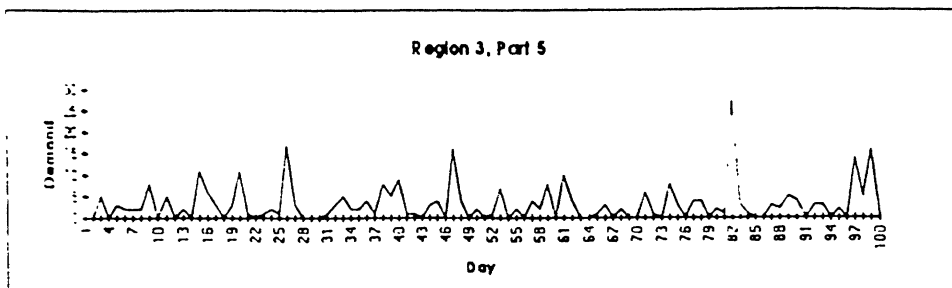


Historical Demands

Region: 3
Part: 5

Std Dev: 4.4998
Mean: 3.2100

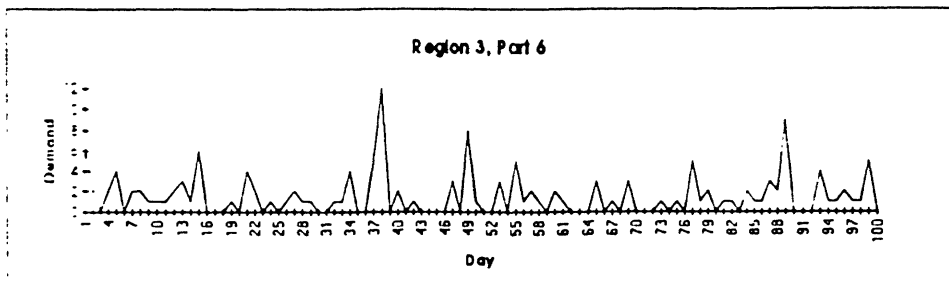
Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	0.00	21	1.00	41	1.00	61	10.00	81	1.00
2	0.00	22	0.00	42	1.00	62	4.00	82	28.00
3	5.00	23	1.00	43	0.00	63	0.00	83	3.00
4	0.00	24	2.00	44	3.00	64	0.00	84	1.00
5	3.00	25	1.00	45	4.00	65	1.00	85	0.00
6	2.00	26	17.00	46	0.00	66	3.00	86	0.00
7	2.00	27	3.00	47	16.00	67	0.00	87	3.00
8	2.00	28	0.00	48	4.00	68	2.00	88	2.00
9	8.00	29	0.00	49	0.00	69	0.00	89	5.00
10	0.00	30	0.00	50	2.00	70	0.00	90	4.00
11	5.00	31	1.00	51	0.00	71	6.00	91	0.00
12	0.00	32	3.00	52	1.00	72	1.00	92	3.00
13	2.00	33	5.00	53	7.00	73	0.00	93	3.00
14	0.00	34	2.00	54	0.00	74	8.00	94	0.00
15	11.00	35	2.00	55	2.00	75	3.00	95	2.00
16	6.00	36	4.00	56	0.00	76	0.00	96	0.00
17	3.00	37	1.00	57	4.00	77	4.00	97	14.00
18	0.00	38	8.00	58	2.00	78	4.00	98	5.00
19	3.00	39	5.00	59	9.00	79	0.00	99	16.00
20	11.00	40	9.00	60	0.00	80	2.00	100	0.00



Region: 3
Part: 6

Std Dev: 2.1200
Mean: 1.5200

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	7.00	21	4.00	41	3.00	61	1.00	81	1.00
2	2.00	22	2.00	42	1.00	62	3.00	82	1.00
3	0.00	23	0.00	43	0.00	63	0.00	83	0.00
4	2.00	24	1.00	44	3.00	64	3.00	84	2.00
5	4.00	25	0.00	45	0.00	65	3.30	85	1.00
6	0.00	26	1.00	46	0.00	66	0.00	86	1.00
7	2.00	27	2.00	47	3.00	67	1.00	87	3.00
8	2.00	28	1.00	48	0.00	68	2.00	88	2.00
9	1.00	29	1.00	49	9.00	69	3.00	89	9.00
10	1.00	30	3.00	50	1.00	70	0.00	90	0.00
11	1.00	31	0.00	51	0.00	71	0.00	91	0.00
12	2.00	32	1.00	52	0.00	72	0.00	92	0.00
13	3.00	33	1.00	53	3.00	73	1.00	93	4.00
14	1.00	34	4.00	54	0.00	74	0.00	94	1.00
15	6.00	35	0.00	55	5.00	75	1.00	95	1.00
16	0.00	36	0.00	56	1.00	76	0.00	96	2.00
17	0.00	37	5.00	57	2.00	77	5.00	97	1.00
18	0.00	38	12.00	58	1.00	78	1.00	98	1.00
19	1.00	39	3.00	59	0.00	79	2.00	99	5.00
20	0.00	40	2.00	60	2.00	80	0.00	100	0.00

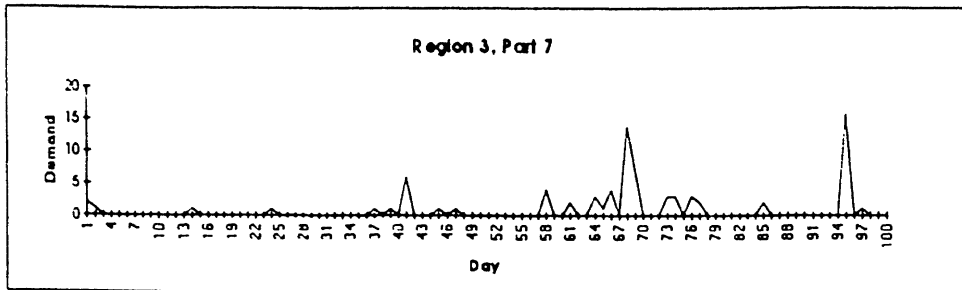


Historical Demands

Region: 3
Part: 7

Std Dev: 2.3911
Mean: 0.8000

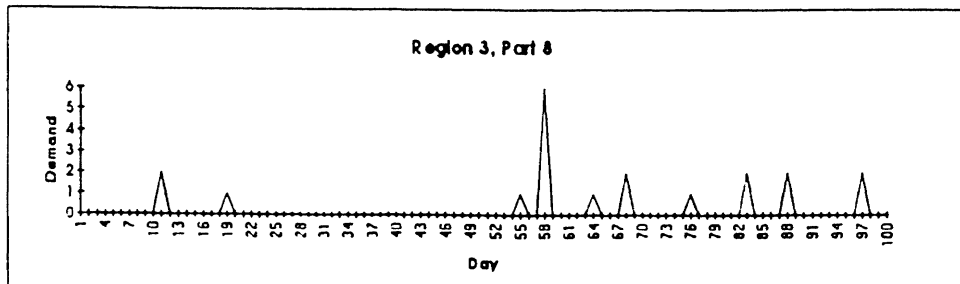
Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	2.00	21	0.00	41	6.00	61	2.00	81	0.00
2	1.00	22	0.00	42	0.00	62	0.00	82	0.00
3	0.00	23	0.00	43	0.00	63	0.00	83	0.00
4	0.00	24	1.00	44	0.00	64	3.00	84	0.00
5	0.00	25	0.00	45	1.00	65	1.00	85	2.00
6	0.00	26	0.00	46	0.00	66	4.00	86	0.00
7	0.00	27	0.00	47	1.00	67	0.00	87	0.00
8	0.00	28	0.00	48	0.00	68	14.00	88	0.00
9	0.00	29	0.00	49	0.00	69	7.00	89	0.00
10	0.00	30	0.00	50	0.00	70	0.00	90	0.00
11	0.00	31	0.00	51	0.00	71	0.00	91	0.00
12	0.00	32	0.00	52	0.00	72	0.00	92	0.00
13	0.00	33	0.00	53	0.00	73	3.00	93	0.00
14	1.00	34	0.00	54	0.00	74	3.00	94	0.00
15	0.00	35	0.00	55	0.00	75	0.00	95	16.00
16	0.00	36	0.00	56	0.00	76	3.00	96	0.00
17	0.00	37	1.00	57	0.00	77	2.00	97	1.00
18	0.00	38	0.00	58	4.00	78	0.00	98	0.00
19	0.00	39	1.00	59	0.00	79	0.00	99	0.00
20	0.00	40	0.00	60	0.00	80	0.00	100	0.00



Region: 3
Part: 8

Std Dev: 0.7521
Mean: 0.2000

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	0.00	21	0.00	41	0.00	61	0.00	81	0.00
2	0.00	22	0.00	42	0.00	62	0.00	82	0.00
3	0.00	23	0.00	43	0.00	63	0.00	83	2.00
4	0.00	24	0.00	44	0.00	64	1.00	84	0.00
5	0.00	25	0.00	45	0.00	65	0.00	85	0.00
6	0.00	26	0.00	46	0.00	66	0.00	86	0.00
7	0.00	27	0.00	47	0.00	67	0.00	87	0.00
8	0.00	28	0.00	48	0.00	68	2.00	88	2.00
9	0.00	29	0.00	49	0.00	69	0.00	89	0.00
10	0.00	30	0.00	50	0.00	70	0.00	90	0.00
11	2.00	31	0.00	51	0.00	71	0.00	91	0.00
12	0.00	32	0.00	52	0.00	72	0.00	92	0.00
13	0.00	33	0.00	53	0.00	73	0.00	93	0.00
14	0.00	34	0.00	54	0.00	74	0.00	94	0.00
15	0.00	35	0.00	55	1.00	75	0.00	95	0.00
16	0.00	36	0.00	56	0.00	76	1.00	96	0.00
17	0.00	37	0.00	57	0.00	77	0.00	97	2.00
18	0.00	38	0.00	58	6.00	78	0.00	98	0.00
19	1.00	39	0.00	59	0.00	79	0.00	99	0.00
20	0.00	40	0.00	60	0.00	80	0.00	100	0.00

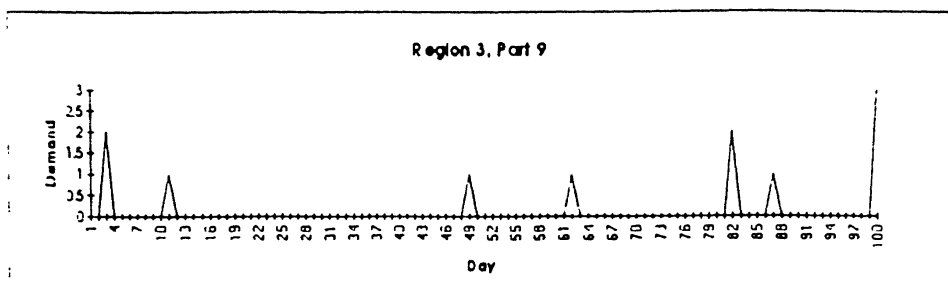


Historical Demands

Region: 3
Part: 9

Std Dev: 0.4471
Mean: 0.1100

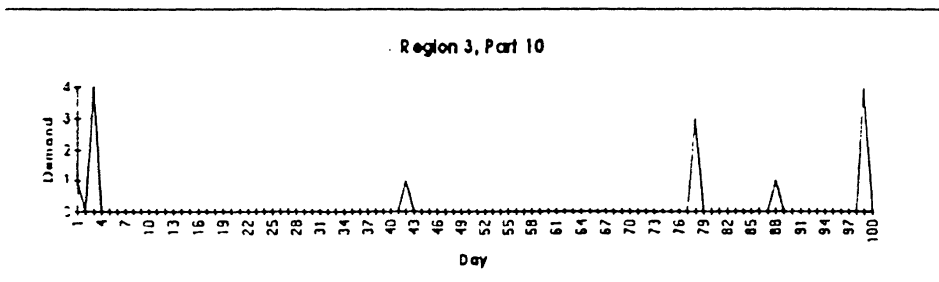
Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	0.00	21	0.00	41	0.00	61	0.00	81	0.00
2	0.00	22	0.00	42	0.00	62	1.00	82	2.00
3	2.00	23	0.00	43	0.00	63	0.00	83	0.00
4	0.00	24	0.00	44	0.00	64	0.00	84	0.00
5	0.00	25	0.00	45	0.00	65	0.00	85	0.00
6	0.00	26	0.00	46	0.00	66	0.00	86	0.00
7	0.00	27	0.00	47	0.00	67	0.00	87	1.00
8	0.00	28	0.00	48	0.00	68	0.00	88	0.00
9	0.00	29	0.00	49	0.00	69	0.00	89	0.00
10	0.00	30	0.00	50	0.00	70	0.00	90	0.00
11	1.00	31	0.00	51	0.00	71	0.00	91	0.00
12	0.00	32	0.00	52	0.00	72	0.00	92	0.00
13	0.00	33	0.00	53	0.00	73	0.00	93	0.00
14	0.00	34	0.00	54	0.00	74	0.00	94	0.00
15	0.00	35	0.00	55	0.00	75	0.00	95	0.00
16	0.00	36	0.00	56	0.00	76	0.00	96	0.00
17	0.00	37	0.00	57	0.00	77	0.00	97	0.00
18	0.00	38	0.00	58	0.00	78	0.00	98	0.00
19	0.00	39	0.00	59	0.00	79	0.00	99	0.00
20	0.00	40	0.00	60	0.00	80	0.00	100	3.00



Region: 3
Part: 10

Std Dev: 1.6516
Mean: 0.1400

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	0.00	21	0.00	41	0.00	61	0.00	81	0.00
2	0.00	22	0.00	42	1.00	62	0.00	82	0.00
3	4.00	23	0.00	43	0.00	63	0.00	83	0.00
4	0.00	24	0.00	44	0.00	64	0.00	84	0.00
5	0.00	25	0.00	45	0.00	65	0.00	85	0.00
6	0.00	26	0.00	46	0.00	66	0.00	86	0.00
7	0.00	27	0.00	47	0.00	67	0.00	87	0.00
8	0.00	28	0.00	48	0.00	68	0.00	88	1.00
9	0.00	29	0.00	49	0.00	69	0.00	89	0.00
10	0.00	30	0.00	50	0.00	70	0.00	90	0.00
11	0.00	31	0.00	51	0.00	71	0.00	91	0.00
12	0.00	32	0.00	52	0.00	72	0.00	92	0.00
13	0.00	33	0.00	53	0.00	73	0.00	93	0.00
14	0.00	34	0.00	54	0.00	74	0.00	94	0.00
15	0.00	35	0.00	55	0.00	75	0.00	95	0.00
16	0.00	36	0.00	56	0.00	76	0.00	96	0.00
17	0.00	37	0.00	57	0.00	77	0.00	97	0.00
18	0.00	38	0.00	58	0.00	78	0.00	98	0.00
19	0.00	39	0.00	59	0.00	79	0.00	99	4.00
20	0.00	40	0.00	60	0.00	80	0.00	100	0.00

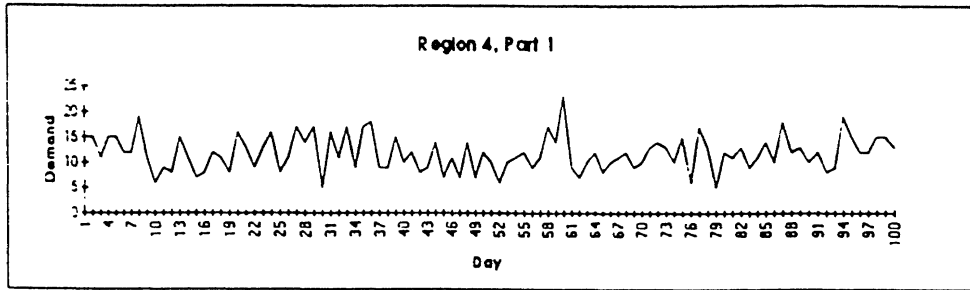


Historical Demands

Region: 4
Part: 1

Std Dev: 3.4778
Mean: 11.8100

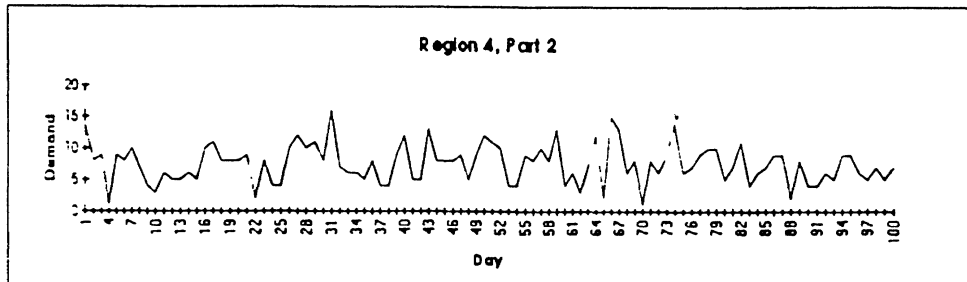
Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	15.00	21	13.00	41	12.00	61	9.00	81	11.00
2	15.00	22	9.00	42	8.00	62	7.00	82	13.00
3	11.00	23	13.00	43	9.00	63	10.00	83	9.00
4	15.00	24	16.00	44	14.00	64	12.00	84	11.00
5	15.00	25	8.00	45	7.00	65	8.00	85	14.00
6	12.00	26	11.00	46	11.00	66	10.00	86	10.00
7	12.00	27	17.00	47	7.00	67	11.00	87	18.00
8	19.00	28	14.00	48	14.00	68	12.00	88	12.00
9	11.00	29	17.00	49	7.00	69	9.00	89	13.00
10	6.00	30	5.00	50	12.00	70	10.00	90	10.00
11	9.00	31	16.00	51	10.00	71	13.00	91	12.00
12	8.00	32	11.00	52	6.00	72	14.00	92	8.00
13	15.00	33	17.00	53	10.00	73	13.00	93	9.00
14	11.00	34	9.00	54	11.00	74	10.00	94	19.00
15	7.00	35	17.00	55	12.00	75	15.00	95	15.00
16	8.00	36	18.00	56	9.00	76	6.00	96	12.00
17	12.00	37	9.00	57	11.00	77	17.00	97	12.00
18	11.00	38	9.00	58	17.00	78	13.00	98	15.00
19	8.00	39	15.00	59	14.00	79	5.00	99	40.00
20	36.00	40	33.00	60	32.00	80	36.00	100	34.00



Region: 4
Part: 2

Std Dev: 3.1189
Mean: 7.5000

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	4.00	21	9.00	41	5.00	61	6.00	81	7.00
2	8.00	22	2.00	42	5.00	62	3.00	82	11.00
3	9.00	23	8.00	43	13.00	63	7.00	83	4.00
4	1.00	24	4.00	44	8.00	64	12.00	84	6.00
5	9.00	25	4.00	45	8.00	65	2.00	85	7.00
6	3.00	26	19.00	46	8.00	66	15.00	86	9.00
7	2.00	27	12.00	47	9.00	67	13.00	87	9.00
8	1.00	28	10.00	48	5.00	68	6.00	88	2.00
9	4.00	29	11.00	49	9.00	69	8.00	89	8.00
10	3.00	30	8.00	50	12.00	70	1.00	90	4.00
11	6.00	31	16.00	51	11.00	71	8.00	91	4.00
12	5.00	32	7.00	52	10.00	72	6.00	92	6.00
13	5.00	33	6.00	53	4.00	73	9.00	93	5.00
14	6.00	34	6.00	54	4.00	74	14.00	94	9.00
15	5.00	35	5.00	55	9.00	75	6.00	95	9.00
16	10.00	36	8.00	56	8.00	76	7.00	96	6.00
17	11.00	37	4.00	57	10.00	77	9.00	97	5.00
18	8.00	38	4.00	58	8.00	78	10.00	98	7.00
19	5.00	39	9.00	59	13.00	79	10.00	99	5.00
20	8.00	40	12.00	60	4.00	80	5.00	100	7.00

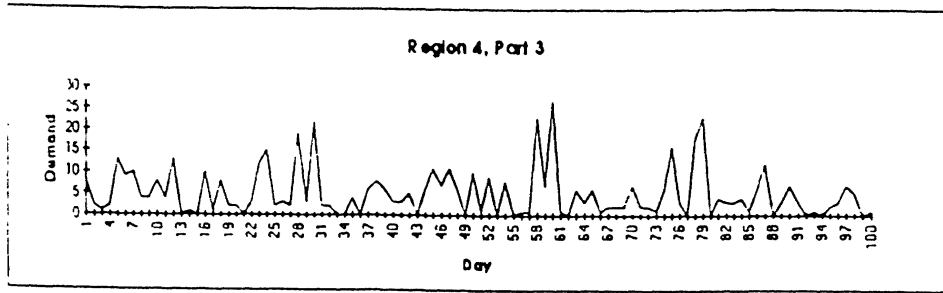


Historical Demands

Region: 4
Part: 3

Std Dev: 6.7556
Mean: 5.1600

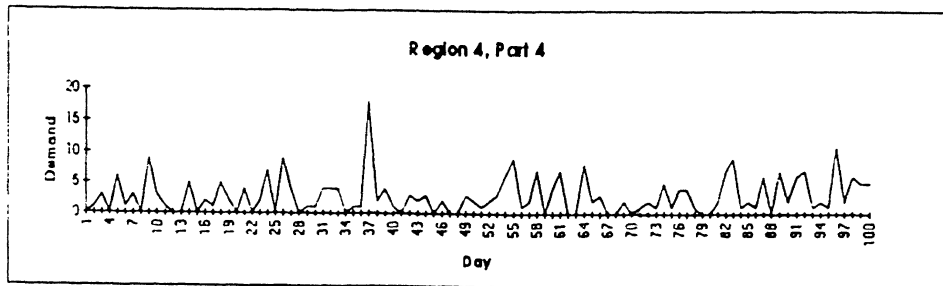
Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	8.00	21	0.00	41	3.00	61	1.00	81	4.00
2	2.00	22	3.00	42	5.00	62	0.00	82	3.00
3	1.00	23	12.00	43	0.00	63	6.00	83	3.00
4	2.00	24	15.00	44	6.00	64	3.00	84	4.00
5	13.00	25	2.00	45	11.00	65	6.00	85	1.00
6	9.00	26	3.00	46	7.00	66	1.00	86	6.00
7	10.00	27	2.00	47	11.00	67	2.00	87	12.00
8	4.00	28	19.00	48	6.00	68	2.00	88	0.00
9	4.00	29	3.00	49	0.00	69	2.00	89	3.00
10	8.00	30	22.00	50	10.00	70	7.00	90	7.00
11	4.00	31	2.00	51	1.00	71	2.00	91	3.00
12	13.00	32	2.00	52	9.00	72	2.00	92	0.00
13	0.00	33	0.00	53	0.00	73	1.00	93	1.00
14	1.00	34	0.00	54	8.00	74	6.00	94	0.00
15	0.00	35	4.00	55	0.00	75	16.00	95	2.00
16	10.00	36	0.00	56	1.00	76	3.00	96	3.00
17	1.00	37	6.00	57	1.00	77	0.00	97	7.00
18	8.00	38	8.00	58	23.00	78	18.00	98	5.00
19	2.00	39	6.00	59	7.00	79	23.00	99	0.00
20	2.00	40	3.00	60	27.00	80	3.00	100	1.00



Region: 4
Part: 4

Std Dev: 3.0717
Mean: 2.8300

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	3.00	21	4.00	41	0.00	61	3.00	81	2.00
2	1.00	22	3.00	42	3.00	62	3.00	82	7.00
3	3.00	23	2.00	43	2.00	63	3.00	83	9.00
4	3.00	24	3.00	44	3.00	64	3.00	84	1.00
5	5.00	25	3.00	45	0.00	65	3.00	85	2.00
6	3.00	26	3.00	46	2.00	66	3.00	86	1.00
7	3.00	27	4.00	47	0.00	67	3.00	87	6.00
8	3.00	28	1.00	48	0.00	68	3.00	88	0.00
9	3.00	29	1.00	49	3.00	69	3.00	89	7.00
10	3.00	30	1.00	50	2.00	70	3.00	90	2.00
11	3.00	31	4.00	51	1.00	71	3.00	91	6.00
12	3.00	32	4.00	52	2.00	72	2.00	92	7.00
13	0.00	33	4.00	53	3.00	73	3.00	93	1.00
14	5.00	34	3.00	54	6.00	74	5.00	94	2.00
15	2.00	35	3.00	55	9.00	75	1.00	95	1.00
16	2.00	36	1.00	56	1.00	76	4.00	96	11.00
17	1.00	37	3.00	57	2.00	77	4.00	97	2.00
18	5.00	38	2.00	58	7.00	78	1.00	98	6.00
19	2.00	39	4.00	59	0.00	79	3.00	99	5.00
20	3.00	40	1.00	60	4.00	80	3.00	100	5.00

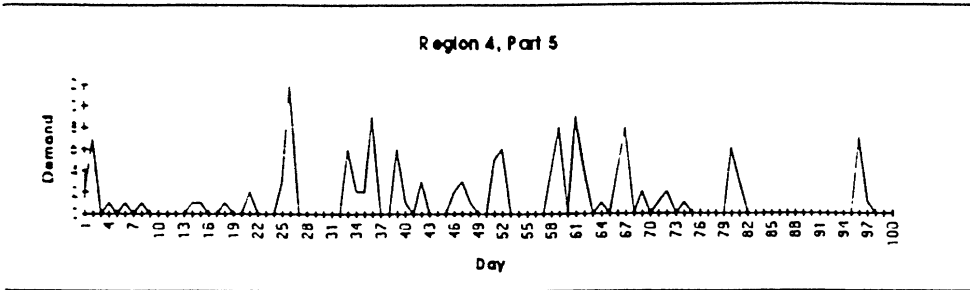


Historical Demands

Region: 4
Part: 5

Std Dev: 2.5262
Mean: 1.3900

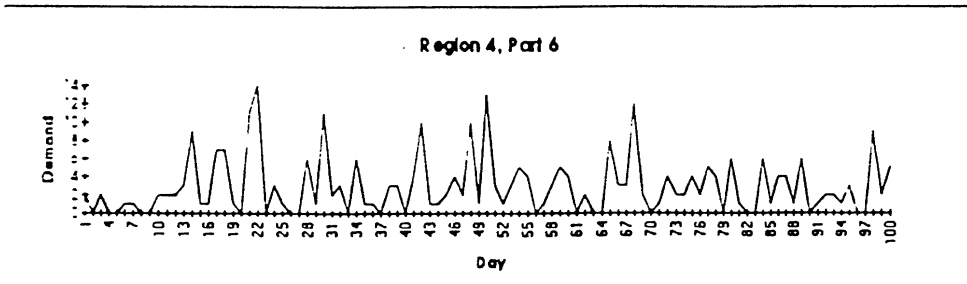
Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	2.00	21	2.00	41	0.00	61	9.00	81	3.00
2	7.00	22	0.00	42	3.00	62	4.00	82	0.00
3	0.00	23	0.00	43	0.00	63	0.00	83	0.00
4	1.00	24	0.00	44	0.00	64	1.00	84	0.00
5	0.00	25	3.00	45	0.00	65	0.00	85	0.00
6	1.00	26	12.00	46	2.00	66	4.00	86	0.00
7	0.00	27	0.00	47	3.00	67	8.00	87	0.00
8	1.00	28	0.00	48	1.00	68	0.00	88	0.00
9	0.00	29	0.00	49	0.00	69	2.00	89	0.00
10	0.00	30	0.00	50	0.00	70	0.00	90	0.00
11	0.00	31	0.00	51	5.00	71	1.00	91	0.00
12	0.00	32	0.00	52	6.00	72	2.00	92	0.00
13	0.00	33	6.00	53	0.00	73	0.00	93	0.00
14	1.00	34	2.00	54	0.00	74	1.00	94	0.00
15	1.00	35	2.00	55	0.00	75	0.00	95	0.00
16	0.00	36	9.00	56	0.00	76	0.00	96	7.00
17	0.00	37	0.00	57	0.00	77	0.00	97	1.00
18	1.00	38	0.00	58	4.00	78	0.00	98	0.00
19	0.00	39	6.00	59	8.00	79	0.00	99	0.00
20	0.00	40	1.00	60	0.00	80	6.00	100	0.00



Region: 4
Part: 6

Std Dev: 3.2245
Mean: 2.9200

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	2.00	21	11.00	41	4.00	61	0.00	81	1.00
2	0.00	22	14.00	42	19.00	62	2.00	82	0.00
3	2.00	23	3.00	43	1.00	63	0.00	83	0.00
4	3.00	24	3.00	44	1.00	64	0.00	84	6.00
5	3.00	25	1.00	45	2.00	65	8.00	85	1.00
6	1.00	26	0.00	46	4.00	66	3.00	86	4.00
7	1.00	27	0.00	47	2.00	67	3.00	87	4.00
8	3.00	28	5.00	48	10.00	68	12.00	88	1.00
9	3.00	29	1.00	49	1.00	69	2.00	89	6.00
10	2.00	30	11.00	50	13.00	70	0.00	90	0.00
11	2.00	31	2.00	51	3.00	71	1.00	91	1.00
12	2.00	32	3.00	52	1.00	72	4.00	92	2.00
13	3.00	33	0.00	53	3.00	73	2.00	93	2.00
14	9.00	34	6.00	54	5.00	74	2.00	94	1.00
15	1.00	35	1.00	55	4.00	75	4.00	95	3.00
16	1.00	36	1.00	56	0.00	76	2.00	96	0.00
17	7.00	37	0.00	57	1.00	77	5.00	97	0.00
18	7.00	38	3.00	58	3.00	78	4.00	98	9.00
19	1.00	39	3.00	59	5.00	79	0.00	99	2.00
20	0.00	40	0.00	60	4.00	80	6.00	100	5.00

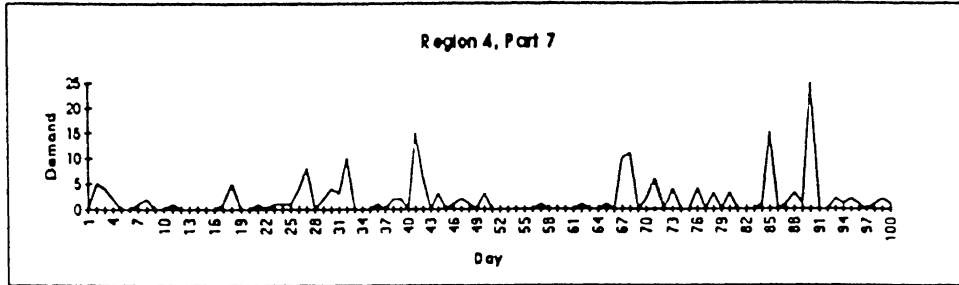


Historical Demands

Region: 4
Part: 7

Std Dev: 3.7600
Mean: 1.9400

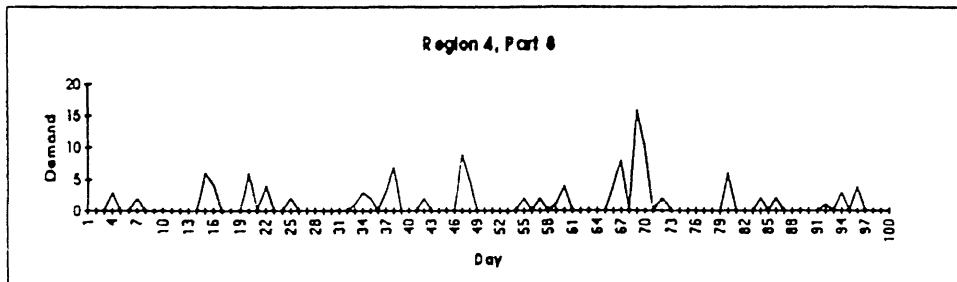
Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	0.00	21	1.00	41	15.00	61	0.00	81	0.00
2	5.00	22	0.00	42	6.00	62	1.00	82	0.00
3	4.00	23	1.00	43	0.00	63	0.00	83	0.00
4	2.00	24	1.00	44	3.00	64	0.00	84	1.00
5	0.00	25	1.00	45	0.00	65	1.00	85	16.00
6	0.00	26	4.00	46	1.00	66	0.00	86	0.00
7	1.00	27	8.00	47	2.00	67	10.00	87	1.00
8	2.00	28	0.00	48	1.00	68	11.00	88	3.00
9	0.00	29	2.00	49	0.00	69	0.00	89	1.00
10	0.00	30	4.00	50	3.00	70	2.00	90	26.00
11	1.00	31	3.00	51	0.00	71	6.00	91	0.00
12	0.00	32	10.00	52	0.00	72	0.00	92	0.00
13	0.00	33	0.00	53	0.00	73	4.00	93	2.00
14	0.00	34	0.00	54	0.00	74	0.00	94	1.00
15	0.00	35	0.00	55	0.00	75	0.00	95	2.00
16	0.00	36	1.00	56	0.00	76	4.00	96	1.00
17	1.00	37	0.00	57	1.00	77	0.00	97	0.00
18	5.00	38	2.00	58	0.00	78	3.00	98	1.00
19	0.00	39	2.00	59	0.00	79	0.00	99	2.00
20	0.00	40	0.00	60	0.00	80	3.00	100	1.00



Region: 4
Part: 8

Std Dev: 2.6194
Mean: 1.2600

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	0.00	21	0.00	41	0.00	61	0.00	81	0.00
2	0.00	22	4.00	42	2.00	62	0.00	82	0.00
3	0.00	23	0.00	43	0.00	63	0.00	83	0.00
4	3.00	24	0.00	44	0.00	64	0.00	84	2.00
5	0.00	25	2.00	45	0.00	65	0.00	85	0.00
6	0.00	26	0.00	46	0.00	66	4.00	86	2.00
7	2.00	27	0.00	47	9.00	67	8.00	87	0.00
8	0.00	28	0.00	48	5.00	68	0.00	88	0.00
9	3.00	29	0.00	49	0.00	69	16.00	89	0.00
10	0.00	30	0.00	50	0.00	70	10.00	90	0.00
11	0.00	31	0.00	51	0.00	71	0.00	91	0.00
12	0.00	32	0.00	52	0.00	72	2.00	92	1.00
13	0.00	33	1.00	53	0.00	73	0.00	93	0.00
14	0.00	34	3.00	54	0.00	74	0.00	94	3.00
15	6.00	35	2.00	55	2.00	75	0.00	95	0.00
16	4.00	36	0.00	56	0.00	76	0.00	96	4.00
17	0.00	37	3.00	57	2.00	77	0.00	97	0.00
18	0.00	38	7.00	58	0.00	78	0.00	98	0.00
19	0.00	39	0.00	59	1.00	79	0.00	99	0.00
20	6.00	40	0.00	60	4.00	80	6.00	100	0.00

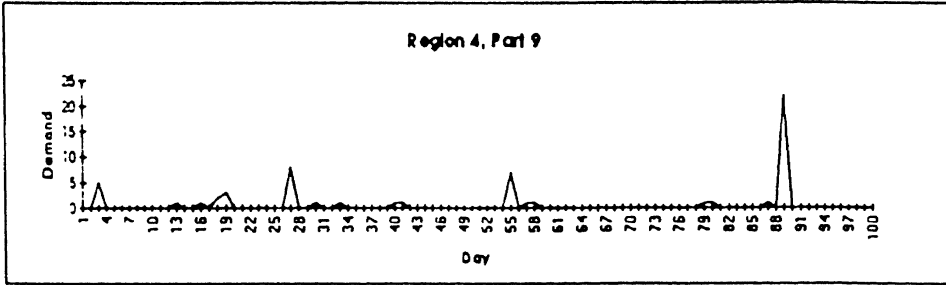


Historical Demands

Region: 4
Part: 9

Std Dev: 2.4871
Mean: 0.5800

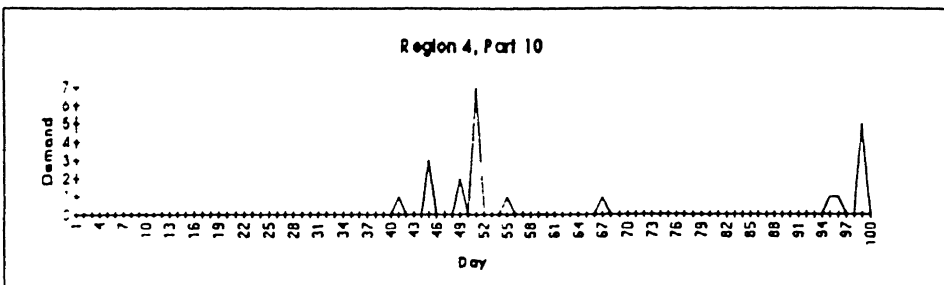
Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	0.00	21	0.00	41	1.00	61	0.00	81	0.00
2	0.00	22	0.00	42	0.00	62	0.00	82	0.00
3	5.00	23	0.00	43	0.00	63	0.00	83	0.00
4	0.00	24	0.00	44	0.00	64	0.00	84	0.00
5	0.00	25	0.00	45	0.00	65	0.00	85	0.00
6	0.00	26	0.00	46	0.00	66	0.00	86	0.00
7	0.00	27	8.00	47	0.00	67	0.00	87	1.00
8	0.00	28	0.00	48	0.00	68	0.00	88	0.00
9	0.00	29	0.00	49	0.00	69	0.00	89	22.00
10	0.00	30	1.00	50	0.00	70	0.00	90	0.00
11	0.00	31	0.00	51	0.00	71	0.00	91	0.00
12	0.00	32	0.00	52	0.00	72	0.00	92	0.00
13	1.00	33	1.00	53	0.00	73	0.00	93	0.00
14	0.00	34	0.00	54	0.00	74	0.00	94	0.00
15	0.00	35	0.00	55	7.00	75	0.00	95	0.00
16	1.00	36	0.00	56	0.00	76	0.00	96	0.00
17	0.00	37	0.00	57	1.00	77	0.00	97	0.00
18	2.00	38	0.00	58	1.00	78	0.00	98	0.00
19	3.00	39	0.00	59	0.00	79	1.00	99	0.00
20	0.00	40	1.00	60	0.00	80	1.00	100	0.00



Region: 4
Part: 10

Std Dev: 0.9383
Mean: 0.2200

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	0.00	21	0.00	41	1.00	61	0.00	81	0.00
2	0.00	22	0.00	42	0.00	62	0.00	82	0.00
3	0.00	23	0.00	43	0.00	63	0.00	83	0.00
4	0.00	24	0.00	44	0.00	64	0.00	84	0.00
5	0.00	25	0.00	45	3.00	65	0.00	85	0.00
6	0.00	26	0.00	46	0.00	66	0.00	86	0.00
7	0.00	27	0.00	47	0.00	67	1.00	87	0.00
8	0.00	28	0.00	48	0.00	68	0.00	88	0.00
9	0.00	29	0.00	49	2.00	69	0.00	89	0.00
10	0.00	30	0.00	50	0.00	70	0.00	90	0.00
11	0.00	31	0.00	51	7.00	71	0.00	91	0.00
12	0.00	32	0.00	52	0.00	72	0.00	92	0.00
13	0.00	33	0.00	53	0.00	73	0.00	93	0.00
14	0.00	34	0.00	54	0.00	74	0.00	94	0.00
15	0.00	35	0.00	55	1.00	75	0.00	95	1.00
16	0.00	36	0.00	56	0.00	76	0.00	96	1.00
17	0.00	37	0.00	57	0.00	77	0.00	97	0.00
18	0.00	38	0.00	58	0.00	78	0.00	98	0.00
19	0.00	39	0.00	59	0.00	79	0.00	99	5.00
20	0.00	40	0.00	60	0.00	80	0.00	100	0.00

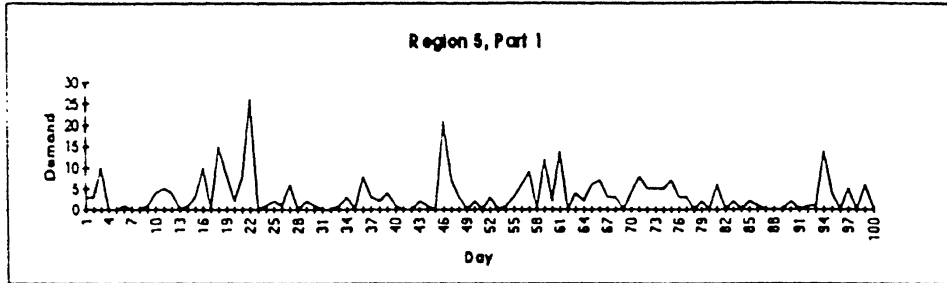


Historical Demands

Region: 5
Part: 1

Std Dev: 4.4981
Mean: 3.3600

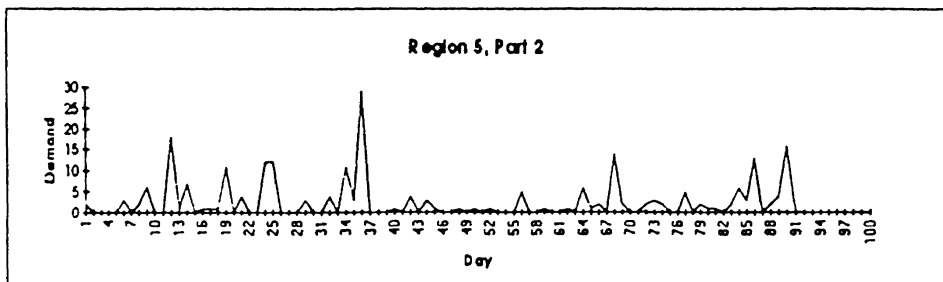
Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	3.00	21	8.00	41	0.00	61	14.00	81	6.00
2	3.00	22	26.00	42	0.00	62	0.00	82	0.00
3	10.00	23	0.00	43	2.00	63	4.00	83	2.00
4	0.00	24	1.00	44	1.00	64	2.00	84	0.00
5	0.00	25	2.00	45	0.00	65	6.00	85	2.00
6	1.00	26	1.00	46	21.00	66	7.00	86	1.00
7	0.00	27	6.00	47	7.00	67	3.00	87	0.00
8	0.00	28	0.00	48	3.00	68	3.00	88	0.00
9	1.00	29	2.00	49	0.00	69	0.00	89	0.00
10	4.00	30	1.00	50	2.00	70	4.00	90	2.00
11	6.00	31	0.00	51	0.00	71	8.00	91	0.00
12	4.00	32	0.00	52	3.00	72	5.00	92	1.00
13	0.00	33	1.00	53	0.00	73	5.00	93	1.00
14	1.00	34	3.00	54	1.00	74	5.00	94	14.00
15	3.00	35	0.00	55	3.00	75	7.00	95	4.00
16	10.00	36	8.00	56	6.00	76	3.00	96	0.00
17	0.00	37	3.00	57	9.00	77	3.00	97	5.00
18	15.00	38	2.00	58	0.00	78	0.00	98	0.00
19	8.00	39	4.00	59	12.00	79	2.00	99	6.00
20	2.00	40	1.00	60	2.00	80	0.00	100	0.00



Region: 5
Part: 2

Std Dev: 4.6377
Mean: 2.3700

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	2.00	21	4.00	41	0.00	61	0.00	81	1.00
2	0.00	22	0.00	42	4.00	62	1.00	82	0.00
3	0.00	23	0.00	43	0.00	63	0.00	83	2.00
4	0.00	24	12.00	44	3.00	64	6.00	84	6.00
5	0.00	25	12.00	45	1.00	65	1.00	85	3.00
6	3.00	26	0.00	46	0.00	66	2.00	86	13.00
7	0.00	27	0.00	47	0.00	67	0.00	87	0.00
8	2.00	28	0.00	48	1.00	68	14.00	88	2.00
9	6.00	29	3.00	49	0.00	69	2.00	89	4.00
10	0.00	30	0.00	50	1.00	70	0.00	90	16.00
11	0.00	31	0.00	51	0.00	71	0.00	91	0.00
12	18.00	32	4.00	52	1.00	72	2.00	92	0.00
13	1.00	33	0.00	53	0.00	73	3.00	93	0.00
14	7.00	34	11.00	54	0.00	74	2.00	94	0.00
15	0.00	35	3.00	55	0.00	75	0.00	95	0.00
16	1.00	36	29.00	56	5.00	76	0.00	96	0.00
17	1.00	37	0.00	57	0.00	77	5.00	97	0.00
18	1.00	38	0.00	58	0.00	78	0.00	98	0.00
19	11.00	39	0.00	59	1.00	79	2.00	99	0.00
20	0.00	40	1.00	60	0.00	80	1.00	100	0.00

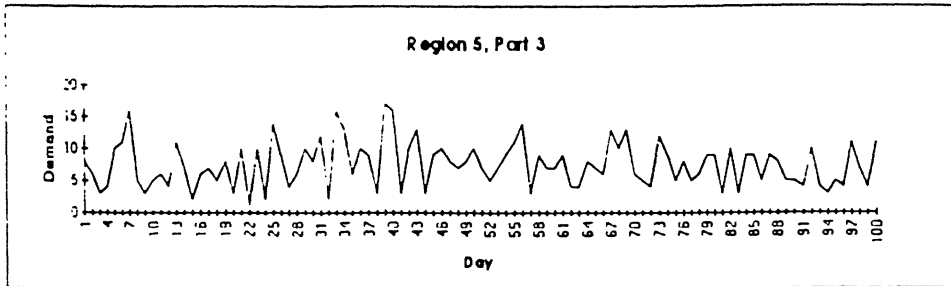


Historical Demands

Region: 5
Part: 3

Std Dev: 3.5661
Mean: 7.4900

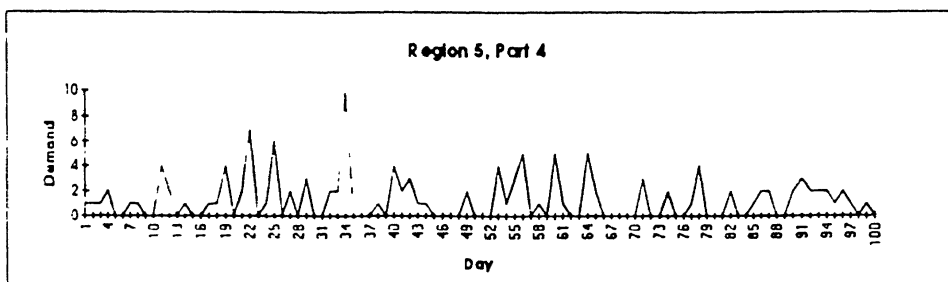
Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	8.00	21	10.00	41	3.00	61	9.00	81	3.00
2	6.00	22	1.00	42	10.00	62	4.00	82	10.00
3	3.00	23	10.00	43	13.00	63	4.00	83	3.00
4	4.00	24	2.00	44	3.00	64	8.00	84	9.00
5	10.00	25	14.00	45	9.00	65	7.00	85	9.00
6	11.00	26	9.00	46	10.00	66	6.00	86	5.00
7	16.00	27	4.00	47	8.00	67	13.00	87	9.00
8	5.00	28	6.00	48	7.00	68	10.00	88	8.00
9	3.00	29	10.00	49	8.00	69	13.00	89	5.00
10	5.00	30	8.00	50	10.00	70	6.00	90	5.00
11	6.00	31	12.00	51	7.00	71	5.00	91	4.00
12	4.00	32	2.00	52	5.00	72	4.00	92	10.00
13	11.00	33	16.00	53	7.00	73	12.00	93	4.00
14	7.00	34	13.00	54	9.00	74	9.00	94	3.00
15	2.00	35	6.00	55	11.00	75	5.00	95	5.00
16	6.00	36	10.00	56	14.00	76	8.00	96	4.00
17	7.00	37	9.00	57	3.00	77	5.00	97	11.00
18	5.00	38	3.00	58	9.00	78	6.00	98	7.00
19	8.00	39	7.00	59	7.00	79	9.00	99	4.00
20	3.00	40	16.00	60	7.00	80	9.00	100	11.00



Region: 5
Part: 4

Std Dev: 1.7712
Mean: 1.2900

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	1.00	21	1.00	41	2.00	61	1.00	81	0.00
2	1.00	22	1.00	42	3.00	62	0.00	82	2.00
3	1.00	23	1.00	43	1.00	63	0.00	83	0.00
4	2.00	24	1.00	44	1.00	64	5.00	84	0.00
5	3.00	25	1.00	45	0.00	65	2.00	85	1.00
6	1.00	26	1.00	46	0.00	66	1.00	86	2.00
7	1.00	27	1.00	47	0.00	67	1.00	87	2.00
8	1.00	28	1.00	48	0.00	68	0.00	88	0.00
9	3.00	29	1.00	49	2.00	69	0.00	89	0.00
10	0.00	30	1.00	50	0.00	70	0.00	90	2.00
11	4.00	31	1.00	51	0.00	71	3.00	91	3.00
12	2.00	32	1.00	52	0.00	72	0.00	92	2.00
13	0.00	33	1.00	53	4.00	73	0.00	93	2.00
14	1.00	34	1.00	54	1.00	74	2.00	94	2.00
15	0.00	35	1.00	55	3.00	75	0.00	95	1.00
16	0.00	36	1.00	56	5.00	76	0.00	96	2.00
17	1.00	37	0.00	57	0.00	77	1.00	97	1.00
18	1.00	38	1.00	58	1.00	78	4.00	98	0.00
19	4.00	39	1.00	59	0.00	79	0.00	99	1.00
20	0.00	40	4.00	60	5.00	80	0.00	100	0.00

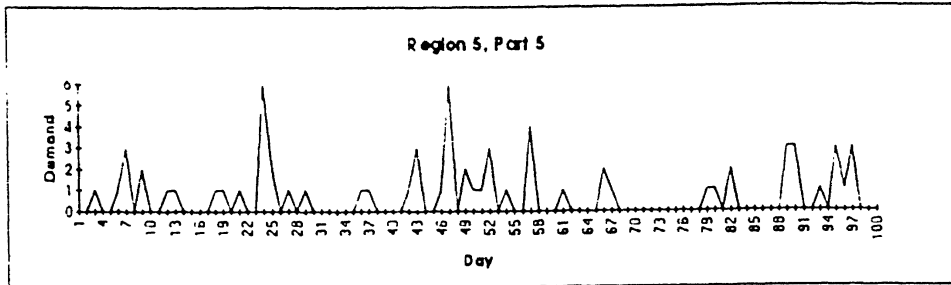


Historical Demands

Region: 5
Part: 5

Std Dev: 1.2119
Mean: 0.6900

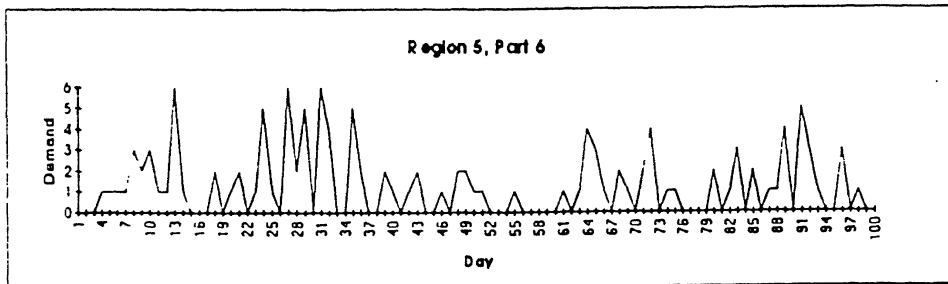
Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	0.00	21	1.00	41	0.00	61	1.00	81	0.00
2	0.00	22	0.00	42	1.00	62	0.00	82	2.00
3	1.00	23	0.00	43	3.00	63	0.00	83	0.00
4	0.00	24	6.00	44	0.00	64	0.00	84	0.00
5	0.00	25	2.00	45	0.00	65	0.00	85	0.00
6	1.00	26	0.00	46	1.00	66	2.00	86	0.00
7	3.00	27	1.00	47	6.00	67	1.00	87	0.00
8	0.00	28	0.00	48	0.00	68	0.00	88	0.00
9	2.00	29	1.00	49	2.00	69	0.00	89	3.00
10	0.00	30	0.00	50	1.00	70	0.00	90	3.00
11	0.00	31	0.00	51	1.00	71	0.00	91	0.00
12	1.00	32	0.00	52	3.00	72	0.00	92	0.00
13	1.00	33	0.00	53	0.00	73	0.00	93	1.00
14	0.00	34	0.00	54	1.00	74	0.00	94	0.00
15	0.00	35	0.00	55	0.00	75	0.00	95	3.00
16	0.00	36	1.00	56	0.00	76	0.00	96	1.00
17	0.00	37	1.00	57	4.00	77	0.00	97	3.00
18	1.00	38	0.00	58	0.00	78	0.00	98	0.00
19	1.00	39	0.00	59	0.00	79	1.00	99	0.00
20	0.00	40	0.00	60	0.00	80	1.00	100	0.00



Region: 5
Part: 6

Std Dev: 1.5851
Mean: 1.2500

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	2.00	21	2.00	41	0.00	61	1.00	81	0.00
2	3.00	22	0.00	42	1.00	62	0.00	82	1.00
3	0.00	23	1.00	43	2.00	63	1.00	83	3.00
4	1.00	24	5.00	44	0.00	64	4.00	84	0.00
5	1.00	25	1.00	45	0.00	65	3.00	85	2.00
6	1.00	26	0.00	46	1.00	66	1.00	86	0.00
7	1.00	27	5.00	47	0.00	67	0.00	87	1.00
8	3.00	28	2.00	48	2.00	68	2.00	88	1.00
9	2.00	29	5.00	49	2.00	69	1.00	89	4.00
10	3.00	30	0.00	50	1.00	70	0.00	90	0.00
11	1.00	31	6.00	51	1.00	71	2.00	91	5.00
12	1.00	32	4.00	52	0.00	72	4.00	92	3.00
13	6.00	33	0.00	53	0.00	73	0.00	93	1.00
14	1.00	34	0.00	54	0.00	74	1.00	94	0.00
15	0.00	35	5.00	55	1.00	75	1.00	95	0.00
16	0.00	36	2.00	56	0.00	76	0.00	96	3.00
17	0.00	37	0.00	57	0.00	77	0.00	97	0.00
18	2.00	38	0.00	58	0.00	78	0.00	98	1.00
19	0.00	39	2.00	59	0.00	79	0.00	99	0.00
20	1.00	40	1.00	60	0.00	80	2.00	100	0.00

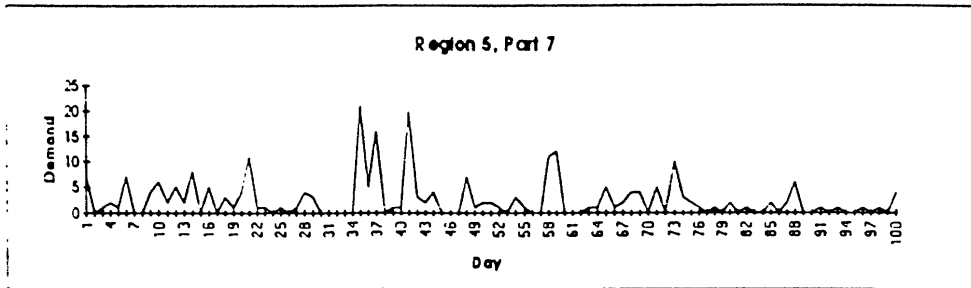


Historical Demands

Region: 5
Part: 7

Std Dev: 3.9808
Mean: 2.5400

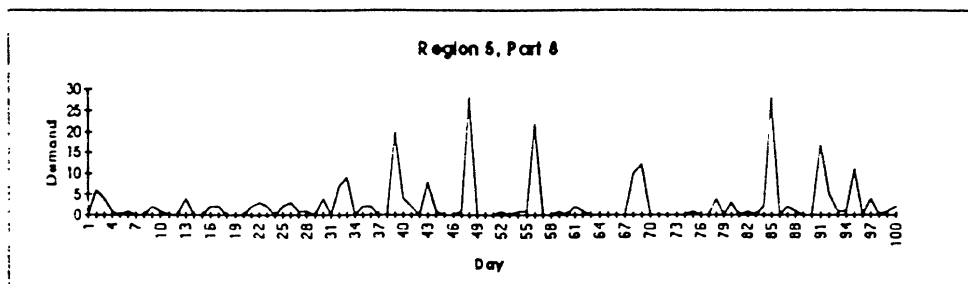
Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	7.00	21	11.00	41	20.00	61	0.00	81	0.00
2	0.00	22	1.00	42	3.00	62	0.00	82	1.00
3	1.00	23	1.00	43	2.00	63	1.00	83	0.00
4	2.00	24	0.00	44	4.00	64	1.00	84	0.00
5	1.00	25	1.00	45	0.00	65	5.00	85	2.00
6	7.00	26	0.00	46	3.00	66	1.00	86	0.00
7	0.00	27	1.00	47	0.00	67	2.00	87	2.00
8	0.00	28	4.00	48	7.00	68	4.00	88	6.00
9	4.00	29	3.00	49	1.00	69	4.00	89	0.00
10	6.00	30	0.00	50	2.00	70	0.00	90	0.00
11	2.00	31	0.00	51	2.00	71	5.00	91	1.00
12	5.00	32	0.00	52	1.00	72	0.00	92	0.00
13	2.00	33	0.00	53	0.00	73	10.00	93	1.00
14	8.00	34	0.00	54	3.00	74	3.00	94	0.00
15	0.00	35	21.00	55	1.00	75	2.00	95	0.00
16	5.00	36	5.00	56	3.00	76	1.00	96	1.00
17	0.00	37	16.00	57	0.00	77	0.00	97	0.00
18	3.00	38	0.00	58	11.00	78	1.00	98	1.00
19	1.00	39	1.00	59	12.00	79	0.00	99	0.00
20	4.00	40	1.00	60	0.00	80	2.00	100	4.00



Region: 5
Part: 8

Std Dev: 5.3917
Mean: 2.6000

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	0.00	21	2.00	41	2.00	61	2.00	81	0.00
2	6.00	22	3.00	42	3.00	62	1.00	82	1.00
3	4.00	23	2.00	43	5.00	63	0.00	83	0.00
4	1.00	24	0.00	44	1.00	64	3.00	84	2.00
5	0.00	25	2.00	45	3.00	65	3.00	85	25.00
6	1.00	26	3.00	46	3.00	66	3.00	86	0.00
7	0.00	27	1.00	47	1.00	67	3.00	87	2.00
8	0.00	28	1.00	48	15.00	68	0.00	88	1.00
9	2.00	29	0.00	49	3.00	69	2.00	89	0.00
10	1.00	30	4.00	50	3.00	70	0.00	90	0.00
11	0.00	31	0.00	51	3.00	71	0.00	91	17.00
12	0.00	32	7.00	52	1.00	72	3.00	92	5.00
13	4.00	33	9.00	53	3.00	73	3.00	93	1.00
14	0.00	34	0.00	54	1.00	74	3.00	94	1.00
15	0.00	35	2.00	55	1.00	75	1.00	95	11.00
16	2.00	36	2.00	56	22.00	76	0.00	96	0.00
17	2.00	37	0.00	57	3.00	77	0.00	97	4.00
18	0.00	38	0.00	58	3.00	78	4.00	98	0.00
19	0.00	39	20.00	59	1.00	79	0.00	99	1.00
20	0.00	40	4.00	60	0.00	80	3.00	100	2.00

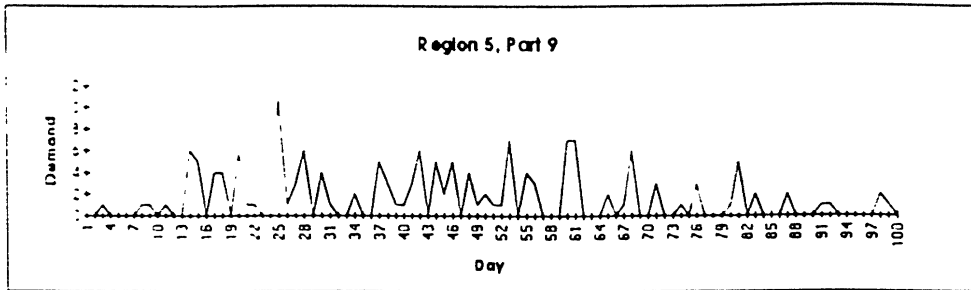


Historical Demands

Region: 5
Part: 9

Std Dev: 2.2571
Mean: 1.5800

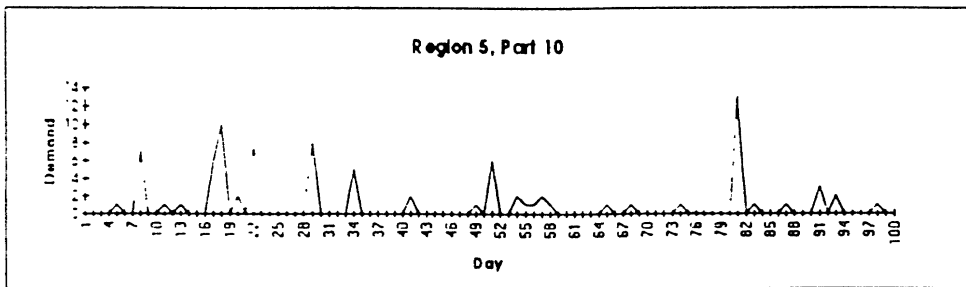
Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	0.00	21	1.00	41	3.00	61	7.00	81	5.00
2	0.00	22	1.00	42	6.00	62	0.00	82	0.00
3	1.00	23	0.00	43	0.00	63	0.00	83	2.00
4	0.00	24	0.00	44	5.00	64	0.00	84	0.00
5	0.00	25	11.00	45	2.00	65	2.00	85	0.00
6	0.00	26	1.00	46	5.00	66	0.00	86	0.00
7	0.00	27	3.00	47	0.00	67	1.00	87	2.00
8	1.00	28	6.00	48	4.00	68	6.00	88	0.00
9	1.00	29	0.00	49	1.00	69	0.00	89	0.00
10	0.00	30	4.00	50	2.00	70	0.00	90	0.00
11	1.00	31	1.00	51	1.00	71	3.00	91	1.00
12	0.00	32	0.00	52	1.00	72	0.00	92	1.00
13	0.00	33	0.00	53	7.00	73	0.00	93	0.00
14	6.00	34	2.00	54	0.00	74	1.00	94	0.00
15	5.00	35	0.00	55	4.00	75	0.00	95	0.00
16	0.00	36	0.00	56	3.00	76	3.00	96	0.00
17	4.00	37	5.00	57	0.00	77	0.00	97	0.00
18	4.00	38	3.00	58	0.00	78	0.00	98	2.00
19	0.00	39	1.00	59	0.00	79	0.00	99	1.00
20	6.00	40	1.00	60	7.00	80	1.00	100	0.00



Region: 5
Part: 10

Std Dev: 2.2603
Mean: 0.8900

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	1.00	21	0.00	41	2.00	61	0.00	81	13.00
2	1.00	22	8.00	42	0.00	62	0.00	82	0.00
3	1.00	23	0.00	43	0.00	63	0.00	83	1.00
4	1.00	24	0.00	44	0.00	64	0.00	84	3.00
5	1.00	25	0.00	45	0.00	65	1.00	85	3.00
6	1.00	26	0.00	46	0.00	66	1.00	86	1.00
7	1.00	27	0.00	47	0.00	67	0.30	87	1.00
8	1.00	28	0.00	48	0.00	68	1.30	88	3.00
9	1.00	29	3.00	49	1.00	69	3.00	89	3.00
10	1.00	30	0.00	50	0.00	70	0.00	90	0.00
11	1.00	31	0.00	51	6.00	71	0.00	91	3.00
12	1.00	32	0.00	52	0.00	72	0.00	92	0.00
13	1.00	33	0.00	53	0.00	73	0.00	93	2.00
14	0.00	34	5.00	54	2.00	74	1.00	94	0.00
15	1.00	35	0.00	55	1.00	75	0.00	95	3.00
16	1.00	36	0.00	56	1.00	76	0.00	96	0.00
17	6.00	37	0.00	57	2.00	77	0.00	97	0.00
18	10.00	38	0.00	58	1.00	78	0.00	98	1.00
19	0.00	39	0.00	59	0.00	79	0.00	99	0.00
20	2.00	40	0.00	60	0.00	80	0.00	100	0.00



Appendix

(Demand by Part over All Regions)

Historical Demand Across Regions

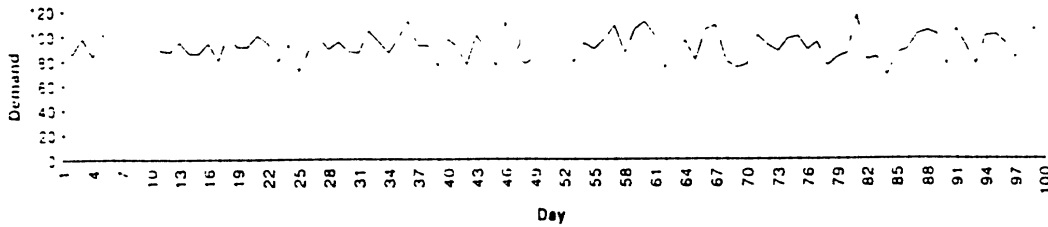
Region: All Regions
Part: 1

Std Dev 10 2702
Mean: 90 9100

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	95 00	21	100 00	41	91 00	61	100 00	81	118 00
2	85 00	22	94 00	42	76 00	62	73 00	82	80 00
3	98 00	23	79 00	43	100 00	63	89 00	83	82 00
4	83 00	24	93 00	44	89 00	64	96 00	84	67 00
5	102 00	25	71 00	45	75 00	65	80 00	85	85 00
6	92 00	26	88 00	46	111 00	66	105 00	86	88 00
7	78 00	27	99 00	47	83 00	67	108 00	87	100 00
8	96 00	28	89 00	48	77 00	68	79 00	88	103 00
9	85 00	29	95 00	49	92 00	69	74 00	89	100 00
10	98 00	30	87 00	50	91 00	70	77 00	90	75 00
11	88 00	31	86 00	51	104 00	71	100 00	91	105 00
12	87 00	32	104 00	52	93 00	72	92 00	92	91 00
13	95 00	33	95 00	53	78 00	73	87 00	93	76 00
14	86 00	34	86 00	54	94 00	74	97 00	94	99 00
15	86 00	35	97 00	55	99 00	75	93 00	95	100 00
16	94 00	36	112 00	56	97 00	76	88 00	96	93 00
17	80 00	37	92 00	57	108 00	77	94 00	97	81 00
18	101 00	38	92 00	58	86 00	78	75 00	98	95 00
19	91 00	39	75 00	59	105 00	79	82 00	99	106 00
20	91 00	40	97 00	60	111 00	80	85 00	100	87 00

All Regions, Part 1

Mean: 90 9100
Std Dev: 10 2702
Coef Var: 0 1133



Historical Demand Across Regions

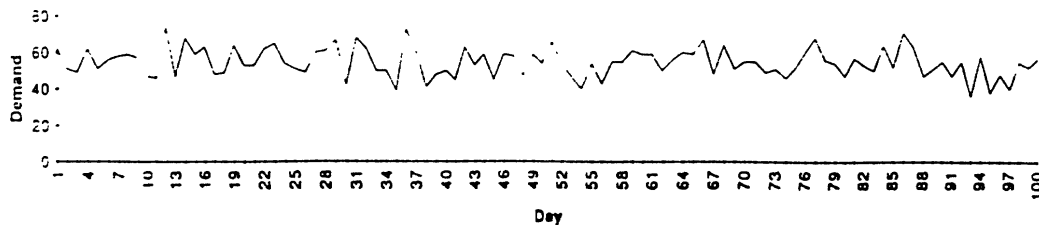
Region: All Regions
Part: 2

Std Dev 7 9199
Mean: 54 6100

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	62 00	21	53 00	41	45 00	61	59 00	81	57 00
2	51 00	22	52 00	42	63 00	62	50 00	82	53 00
3	49 00	23	65 00	43	53 00	63	56 00	83	50 00
4	62 00	24	54 00	44	59 00	64	60 00	84	64 00
5	51 00	25	51 00	45	45 00	65	59 00	85	52 00
6	56 00	26	49 00	46	59 00	66	67 00	86	71 00
7	58 00	27	60 00	47	58 00	67	48 00	87	63 00
8	59 00	28	61 00	48	47 00	68	64 00	88	47 00
9	57 00	29	67 00	49	59 00	69	51 00	89	51 00
10	47 00	30	42 00	50	54 00	70	55 00	90	55 00
11	46 00	31	68 00	51	56 00	71	55 00	91	47 00
12	74 00	32	62 00	52	54 00	72	49 00	92	55 00
13	47 00	33	50 00	53	47 00	73	51 00	93	36 00
14	69 00	34	50 00	54	40 00	74	46 00	94	58 00
15	59 00	35	39 00	55	54 00	75	52 00	95	38 00
16	63 00	36	73 00	56	43 00	76	60 00	96	48 00
17	48 00	37	61 00	57	55 00	77	68 00	97	40 00
18	49 00	38	41 00	58	55 00	78	56 00	98	55 00
19	64 00	39	48 00	59	51 00	79	54 00	99	52 00
20	53 00	40	50 00	60	59 00	80	47 00	100	57 00

All Regions, Part 2

Mean: 54 6100
Std Dev: 7 9199
Coef Var: 0 1450



Historical Demand Across Regions

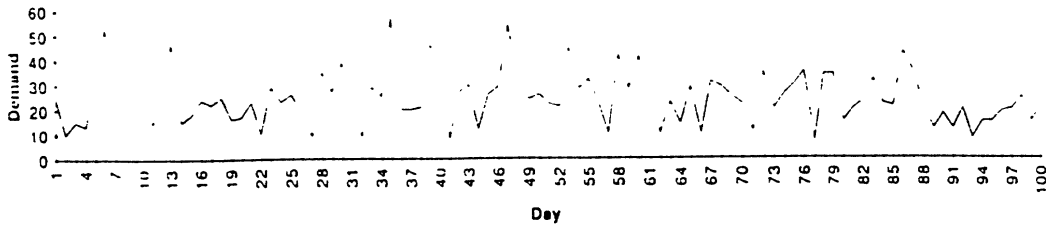
Region: All Regions
Part: 3

Std Dev 10.6242
Mean: 24.4300

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	25.00	21	23.00	41	8.00	61	27.00	81	20.00
2	10.00	22	10.00	42	27.00	62	10.00	82	23.00
3	15.00	23	29.00	43	30.00	63	23.00	83	32.00
4	13.00	24	23.00	44	12.00	64	14.00	84	22.00
5	31.00	25	26.00	45	26.00	65	29.00	85	21.00
6	53.00	26	18.00	46	29.00	66	10.00	86	43.00
7	34.00	27	9.00	47	54.00	67	31.00	87	35.00
8	23.00	28	35.00	48	30.00	68	29.00	88	21.00
9	19.00	29	27.00	49	24.00	69	25.00	89	12.00
10	28.00	30	39.00	50	26.00	70	22.00	90	18.00
11	14.00	31	21.00	51	22.00	71	11.00	91	12.00
12	24.00	32	9.00	52	21.00	72	35.00	92	20.00
13	47.00	33	29.00	53	45.00	73	20.00	93	8.00
14	15.00	34	25.00	54	28.00	74	26.00	94	15.00
15	18.00	35	57.00	55	32.00	75	30.00	95	15.00
16	24.00	36	20.00	56	23.00	76	35.00	96	19.00
17	22.00	37	20.00	57	10.00	77	7.00	97	20.00
18	25.00	38	21.00	58	42.00	78	34.00	98	25.00
19	16.00	39	46.00	59	28.00	79	34.00	99	15.00
20	17.00	40	41.00	60	41.00	80	15.00	100	21.00

All Regions, Part 3

Mean 24.4300
Std Dev 10.6242
Coef Var 0.4349



Historical Demand Across Regions

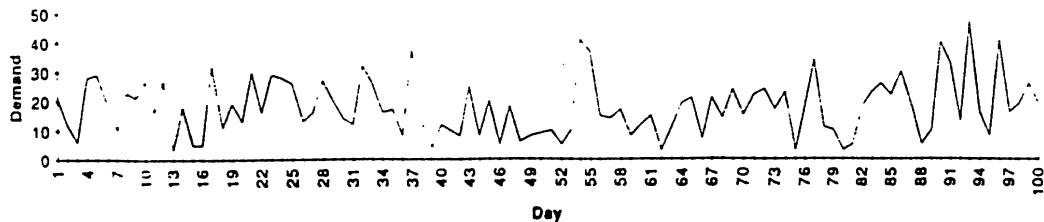
Region: All Regions
Part: 4

Std Dev 9.8510
Mean 17.7800

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	21.00	21	30.00	41	10.00	61	15.00	81	5.00
2	12.00	22	16.00	42	9.00	62	3.00	82	18.00
3	6.00	23	29.00	43	25.00	63	11.00	83	23.00
4	28.00	24	28.00	44	8.00	64	19.00	84	26.00
5	29.00	25	26.00	45	20.00	65	21.00	85	22.00
6	19.00	26	13.00	46	5.00	66	7.00	86	30.00
7	10.00	27	16.00	47	18.00	67	21.00	87	19.00
8	23.00	28	27.00	48	5.00	68	14.00	88	5.00
9	21.00	29	20.00	49	9.00	69	24.00	89	10.00
10	27.00	30	14.00	50	9.00	70	15.00	90	40.00
11	16.00	31	12.00	51	10.00	71	22.00	91	33.00
12	27.00	32	32.00	52	5.00	72	24.00	92	13.00
13	3.00	33	26.00	53	10.00	73	17.00	93	47.00
14	18.00	34	16.00	54	41.00	74	23.00	94	16.00
15	5.00	35	17.00	55	37.00	75	3.00	95	8.00
16	5.00	36	8.00	56	15.00	76	18.00	96	41.00
17	32.00	37	38.00	57	14.00	77	34.00	97	15.00
18	11.00	38	12.00	58	17.00	78	11.00	98	19.00
19	19.00	39	4.00	59	9.00	79	10.00	99	26.00
20	13.00	40	12.00	60	12.00	80	3.00	100	19.00

All Regions, Part 4

Mean 17.7800
Std Dev 9.8510
Coef Var 0.5540

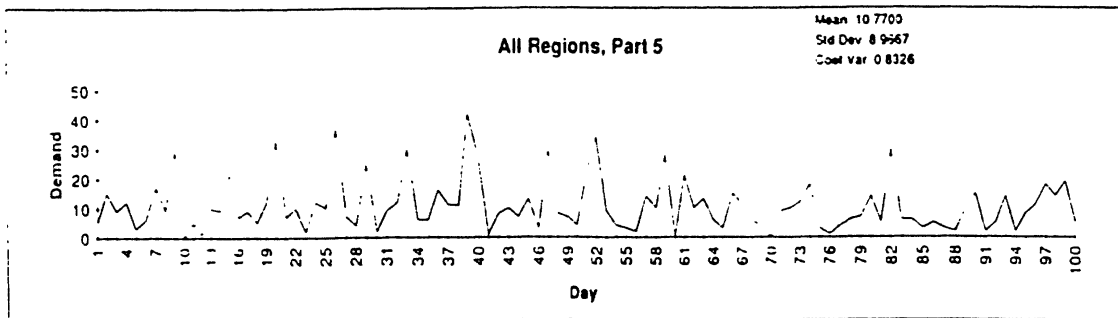


Historical Demand Across Regions

Region: All Regions
Part: 5

Std Dev 8.9667
Mean: 10.7700

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	5.00	21	7.00	41	1.00	61	21.00	81	5.00
2	15.00	22	10.00	42	8.00	62	10.00	82	30.00
3	9.00	23	2.00	43	10.00	63	13.00	83	6.00
4	12.00	24	12.00	44	7.00	64	6.00	84	6.00
5	3.00	25	10.00	45	13.00	65	3.00	85	3.00
6	6.00	26	37.00	46	3.00	66	15.00	86	5.00
7	17.00	27	7.00	47	30.00	67	11.00	87	3.00
8	9.00	28	4.00	48	8.00	68	6.00	88	2.00
9	30.00	29	25.00	49	7.00	69	3.00	89	10.00
10	0.00	30	2.00	50	4.00	70	3.00	90	15.00
11	5.00	31	9.00	51	22.00	71	9.00	91	2.00
12	1.00	32	12.00	52	34.00	72	10.00	92	5.00
13	10.00	33	30.00	53	9.00	73	12.00	93	14.00
14	9.00	34	6.00	54	4.00	74	19.00	94	2.00
15	22.00	35	6.00	55	3.00	75	3.00	95	8.00
16	7.00	36	16.00	56	2.00	76	1.00	96	11.00
17	9.00	37	11.00	57	14.00	77	4.00	97	18.00
18	5.00	38	11.00	58	10.00	78	6.00	98	14.00
19	12.00	39	42.00	59	28.00	79	7.00	99	19.00
20	33.00	40	27.00	60	0.00	80	14.00	100	5.00

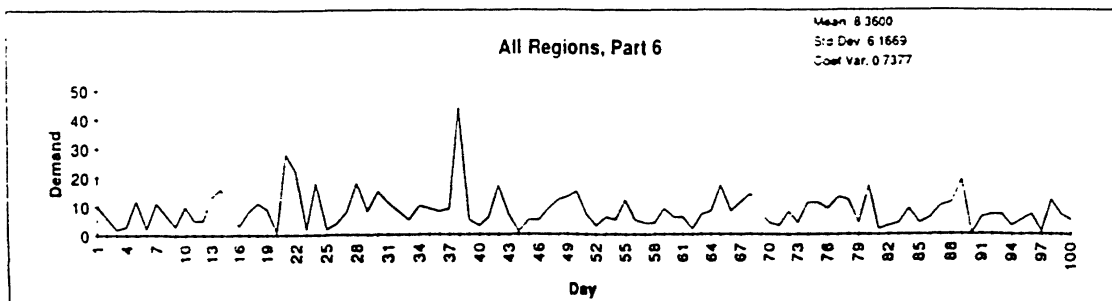


Historical Demand Across Regions

Region: All Regions
Part: 6

Std Dev 6.1669
Mean: 8.3600

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	10.00	21	28.00	41	6.00	61	5.00	81	2.00
2	6.00	22	22.00	42	17.00	62	2.00	82	3.00
3	2.00	23	2.00	43	7.00	63	7.00	83	4.00
4	3.00	24	18.00	44	1.00	64	8.00	84	9.00
5	12.00	25	2.00	45	5.00	65	17.00	85	4.00
6	2.00	26	4.00	46	5.00	66	8.00	86	6.00
7	11.00	27	8.00	47	9.00	67	11.00	87	10.00
8	7.00	28	18.00	48	12.00	68	14.00	88	11.00
9	3.00	29	8.00	49	13.00	69	7.00	89	19.00
10	10.00	30	15.00	50	15.00	70	4.00	90	0.00
11	5.00	31	11.00	51	7.00	71	3.00	91	6.00
12	5.00	32	8.00	52	3.00	72	8.00	92	7.00
13	13.00	33	5.00	53	6.00	73	4.00	93	7.00
14	16.00	34	10.00	54	5.00	74	11.00	94	3.00
15	7.00	35	9.00	55	12.00	75	11.00	95	5.00
16	3.00	36	8.00	56	5.00	76	9.00	96	7.00
17	8.00	37	9.00	57	4.00	77	13.00	97	1.00
18	11.00	38	44.00	58	4.00	78	12.00	98	12.00
19	9.00	39	5.00	59	9.00	79	4.00	99	7.00
20	1.00	40	3.00	60	6.00	80	17.00	100	5.00



Historical Demand Across Regions

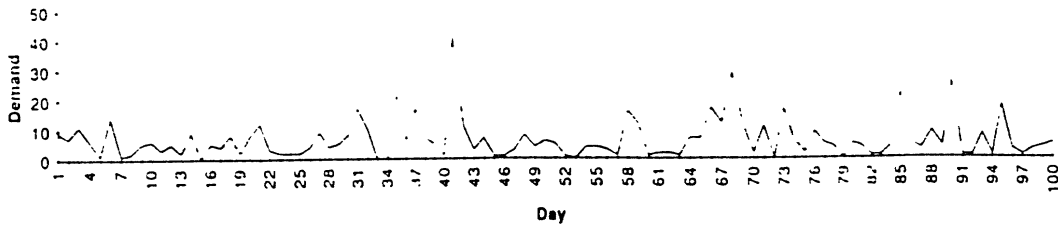
Region: All Regions
Part: 7

Std Dev: 6.8202
Mean: 6.4900

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	9.00	21	12.00	41	41.00	61	2.00	81	4.00
2	7.00	22	3.00	42	11.00	62	2.00	82	1.00
3	11.00	23	2.00	43	3.00	63	1.00	83	1.00
4	6.00	24	2.00	44	7.00	64	7.00	84	4.00
5	1.00	25	2.00	45	1.00	65	7.00	85	22.00
6	14.00	26	4.00	46	1.00	66	17.00	86	5.00
7	1.00	27	9.00	47	3.00	67	12.00	87	3.00
8	2.00	28	4.00	48	8.00	68	29.00	88	9.00
9	5.00	29	5.00	49	4.00	69	11.00	89	4.00
10	6.00	30	8.00	50	6.00	70	2.00	90	26.00
11	3.00	31	17.00	51	5.00	71	11.00	91	1.00
12	5.00	32	10.00	52	1.00	72	0.00	92	1.00
13	2.00	33	0.00	53	0.00	73	17.00	93	8.00
14	9.00	34	0.00	54	4.00	74	6.00	94	1.00
15	0.00	35	22.00	55	4.00	75	2.00	95	18.00
16	5.00	36	6.00	56	3.00	76	9.00	96	3.00
17	4.00	37	17.00	57	1.00	77	5.00	97	1.00
18	8.00	38	7.00	58	16.00	78	4.00	98	3.00
19	2.00	39	5.00	59	12.00	79	0.00	99	4.00
20	8.00	40	1.00	60	1.00	80	5.00	100	5.00

All Regions, Part 7

Mean: 6.4900
Std Dev: 6.8202
Coeff Var: 1.0509



Historical Demand Across Regions

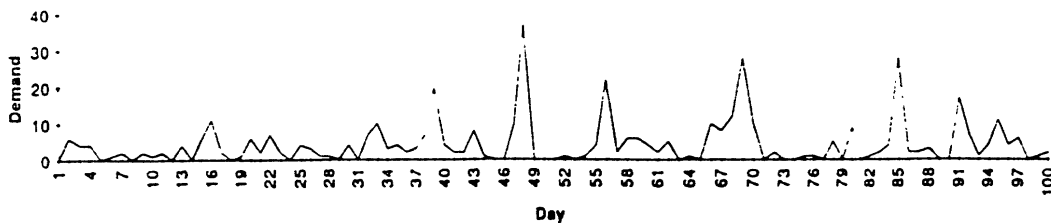
Region: All Regions
Part: 8

Std Dev: 6.3686
Mean: 4.3100

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	0.00	21	2.00	41	2.00	61	2.00	81	0.00
2	6.00	22	7.00	42	2.00	62	5.00	82	1.00
3	4.00	23	2.00	43	8.00	63	0.00	83	2.00
4	4.00	24	0.00	44	1.00	64	1.00	84	4.00
5	0.00	25	4.00	45	0.00	65	0.00	85	28.00
6	1.00	26	3.00	46	0.00	66	10.00	86	2.00
7	2.00	27	1.00	47	10.00	67	8.00	87	2.00
8	0.00	28	1.00	48	37.00	68	12.00	88	3.00
9	2.00	29	0.00	49	0.00	69	28.00	89	0.00
10	1.00	30	4.00	50	0.00	70	10.00	90	0.00
11	2.00	31	0.00	51	0.00	71	0.00	91	17.00
12	0.00	32	7.00	52	1.00	72	2.00	92	7.00
13	4.00	33	10.00	53	0.00	73	0.00	93	1.00
14	0.00	34	3.00	54	1.00	74	0.00	94	4.00
15	6.00	35	4.00	55	4.00	75	1.00	95	11.00
16	11.00	36	2.00	56	22.00	76	1.00	96	4.00
17	2.00	37	3.00	57	2.00	77	0.00	97	6.00
18	0.00	38	7.00	58	6.00	78	5.00	98	0.00
19	1.00	39	20.00	59	6.00	79	0.00	99	1.00
20	6.00	40	4.00	60	4.00	80	9.00	100	2.00

All Regions, Part 8

Mean: 4.3100
Std Dev: 6.3686
Coeff Var: 1.4776



Historical Demand Across Regions

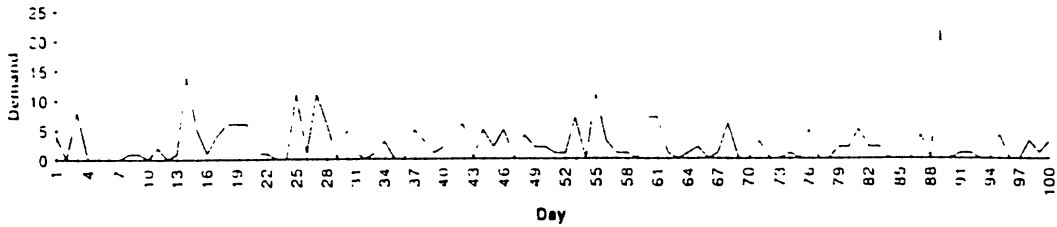
Region: All Regions
Part: 9

Std Dev 3.5118
Mean 2.5200

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	4.00	21	1.00	41	4.00	61	7.00	81	5.00
2	0.00	22	1.00	42	6.00	62	1.00	82	2.00
3	8.00	23	0.00	43	0.00	63	0.00	83	2.00
4	0.00	24	0.00	44	5.00	64	1.00	84	0.00
5	0.00	25	11.00	45	2.00	65	2.00	85	0.00
6	0.00	26	1.00	46	5.00	66	0.00	86	0.00
7	0.00	27	11.00	47	0.00	67	1.00	87	4.00
8	1.00	28	6.00	48	4.00	68	6.00	88	0.00
9	1.00	29	0.00	49	2.00	69	0.00	89	22.00
10	0.00	30	5.00	50	2.00	70	0.00	90	0.00
11	2.00	31	1.00	51	1.00	71	3.00	91	1.00
12	0.00	32	0.00	52	1.00	72	0.00	92	1.00
13	1.00	33	1.00	53	7.00	73	0.00	93	0.00
14	14.00	34	2.00	54	0.00	74	1.00	94	0.00
15	5.00	35	0.00	55	11.00	75	0.00	95	4.00
16	1.00	36	0.00	56	3.00	76	5.00	96	0.00
17	4.00	37	5.00	57	1.00	77	0.00	97	0.00
18	6.00	38	3.00	58	1.00	78	0.00	98	3.00
19	6.00	39	1.00	59	0.00	79	2.00	99	1.00
20	6.00	40	2.00	60	7.00	80	2.00	100	3.00

All Regions, Part 9

Mean 2.5200
Std Dev 3.5118
Coef Var 1.3936



Historical Demand Across Regions

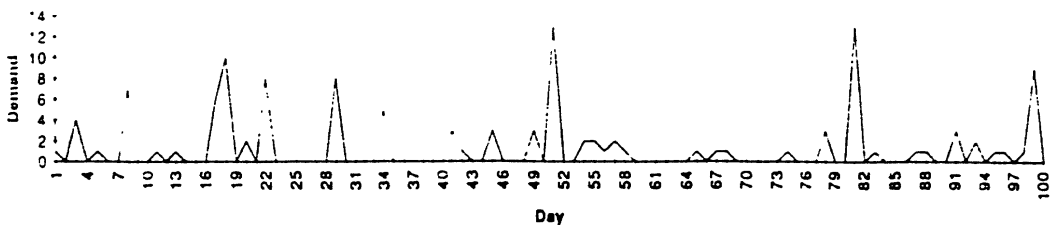
Region: All Regions
Part: 10

Std Dev 2.6567
Mean 1.2500

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	1.00	21	0.00	41	3.00	61	0.00	81	13.00
2	0.00	22	9.00	42	1.00	62	0.00	82	0.00
3	4.00	23	0.00	43	0.00	63	0.00	83	1.00
4	0.00	24	0.00	44	0.00	64	0.00	84	0.00
5	1.00	25	0.00	45	3.00	65	1.00	85	0.00
6	0.00	26	0.00	46	0.00	66	0.00	86	0.00
7	0.00	27	0.00	47	0.00	67	1.00	87	1.00
8	7.00	28	0.00	48	0.00	68	1.00	88	1.00
9	0.00	29	8.00	49	3.00	69	0.00	89	0.00
10	0.00	30	0.00	50	0.00	70	0.00	90	0.00
11	1.00	31	0.00	51	13.00	71	0.00	91	3.00
12	0.00	32	0.00	52	0.00	72	0.00	92	0.00
13	1.00	33	0.00	53	0.00	73	0.00	93	2.00
14	0.00	34	5.00	54	2.00	74	1.00	94	0.00
15	0.00	35	0.00	55	2.00	75	0.00	95	1.00
16	0.00	36	0.00	56	1.00	76	0.00	96	1.00
17	5.00	37	0.00	57	2.00	77	0.00	97	0.00
18	10.00	38	0.00	58	1.00	78	3.00	98	1.00
19	0.00	39	0.00	59	0.00	79	0.00	99	9.00
20	2.00	40	0.00	60	0.00	80	0.00	100	0.00

All Regions, Part 10

Mean 1.2500
Std Dev 2.6567
Coef Var 2.1254



Appendix

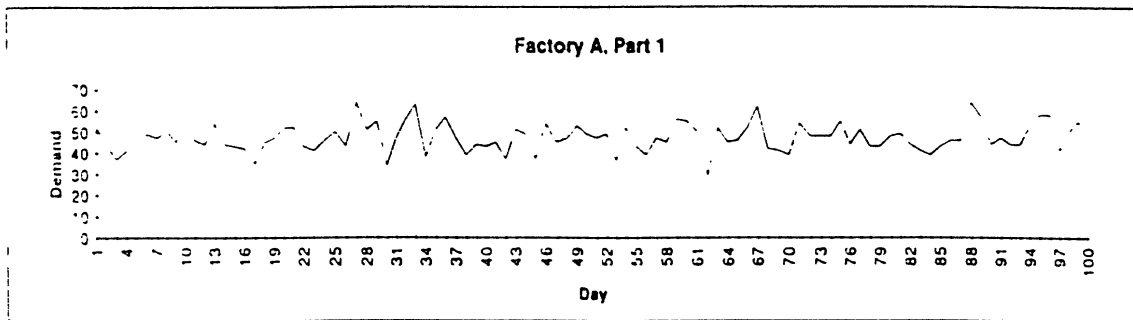
(Production by Part by Factory)

Historical Demand

Factory: A
Part: 1

Std Dev 6.6352
Mean 47.2900

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	52.00	21	52.00	41	45.00	61	50.00	81	49.00
2	44.00	22	43.00	42	37.00	62	29.00	82	44.00
3	37.00	23	41.00	43	51.00	63	52.00	83	41.00
4	41.00	24	46.00	44	49.00	64	45.00	84	39.00
5	45.00	25	50.00	45	37.00	65	46.00	85	43.00
6	49.00	26	43.00	46	54.00	66	52.00	86	46.00
7	47.00	27	64.00	47	45.00	67	62.00	87	46.00
8	51.00	28	51.00	48	47.00	68	42.00	88	64.00
9	45.00	29	55.00	49	53.00	69	41.00	89	57.00
10	56.00	30	34.00	50	49.00	70	39.00	90	44.00
11	46.00	31	47.00	51	47.00	71	54.00	91	47.00
12	44.00	32	56.00	52	49.00	72	48.00	92	44.00
13	54.00	33	63.00	53	36.00	73	48.00	93	44.00
14	44.00	34	38.00	54	52.00	74	48.00	94	53.00
15	43.00	35	51.00	55	43.00	75	55.00	95	58.00
16	42.00	36	57.00	56	39.00	76	44.00	96	58.00
17	35.00	37	47.00	57	47.00	77	51.00	97	41.00
18	45.00	38	39.00	58	45.00	78	43.00	98	50.00
19	47.00	39	44.00	59	56.00	79	43.00	99	55.00
20	52.00	40	43.00	60	55.00	80	48.00	100	47.00

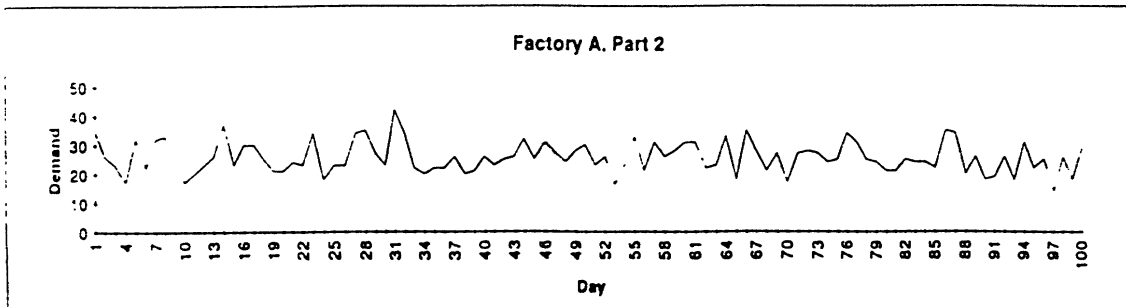


Historical Demand

Factory: A
Part: 2

Std Dev 5.4268
Mean 25.6200

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	35.00	21	24.00	41	23.00	61	31.00	81	21.00
2	26.00	22	23.00	42	25.00	62	22.00	82	25.00
3	23.00	23	34.00	43	28.00	63	23.00	83	24.00
4	17.00	24	18.00	44	32.00	64	33.00	84	24.00
5	32.00	25	23.00	45	25.00	65	18.00	85	22.00
6	22.00	26	23.00	46	31.00	66	35.00	86	35.00
7	32.00	27	34.00	47	27.00	67	28.00	87	34.00
8	33.00	28	35.00	48	24.00	68	21.00	88	20.00
9	23.00	29	27.00	49	23.00	69	27.00	89	26.00
10	17.00	30	23.00	50	32.00	70	17.00	90	18.00
11	20.00	31	42.00	51	23.00	71	27.00	91	19.00
12	23.00	32	34.00	52	25.00	72	28.00	92	26.00
13	26.00	33	22.00	53	16.00	73	27.00	93	18.00
14	37.00	34	20.00	54	23.00	74	24.00	94	31.00
15	23.00	35	22.00	55	33.00	75	25.00	95	22.00
16	30.00	36	22.00	56	21.00	76	34.00	96	25.00
17	30.00	37	26.00	57	31.00	77	31.00	97	14.00
18	25.00	38	20.00	58	28.00	78	25.00	98	26.00
19	21.00	39	21.00	59	28.00	79	24.00	99	18.00
20	21.00	40	26.00	60	31.00	80	21.00	100	29.00



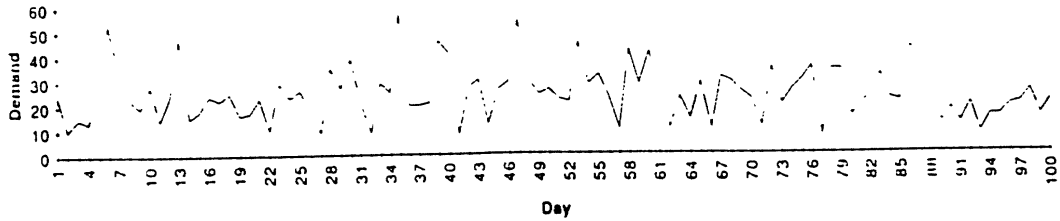
Historical Demand

Factory: A
Part: 3

Std Dev 10.6242
Mean 24.4300

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	25.00	21	23.00	41	8.00	61	27.00	81	20.00
2	10.00	22	10.00	42	27.00	62	10.00	82	23.00
3	15.00	23	29.00	43	30.00	63	23.00	83	32.00
4	13.00	24	23.00	44	12.00	64	14.00	84	22.00
5	31.00	25	26.00	45	26.00	65	29.00	85	21.00
6	53.00	26	18.00	46	29.00	66	10.00	86	43.00
7	34.00	27	9.00	47	54.00	67	31.00	87	35.00
8	23.00	28	35.00	48	30.00	68	29.00	88	21.00
9	19.00	29	27.00	49	24.00	69	25.00	89	12.00
10	28.00	30	39.00	50	26.00	70	22.00	90	18.00
11	14.00	31	21.00	51	22.00	71	11.00	91	12.00
12	24.00	32	9.00	52	21.00	72	35.00	92	20.00
13	47.00	33	29.00	53	45.00	73	20.00	93	8.00
14	15.00	34	25.00	54	28.00	74	26.00	94	15.00
15	18.00	35	57.00	55	32.00	75	30.00	95	15.00
16	24.00	36	20.00	56	23.00	76	35.00	96	19.00
17	22.00	37	20.00	57	10.00	77	7.00	97	20.00
18	25.00	38	21.00	58	42.00	78	34.00	98	25.00
19	16.00	39	46.00	59	28.00	79	34.00	99	15.00
20	17.00	40	41.00	60	41.00	80	15.00	100	21.00

Factory A, Part 3



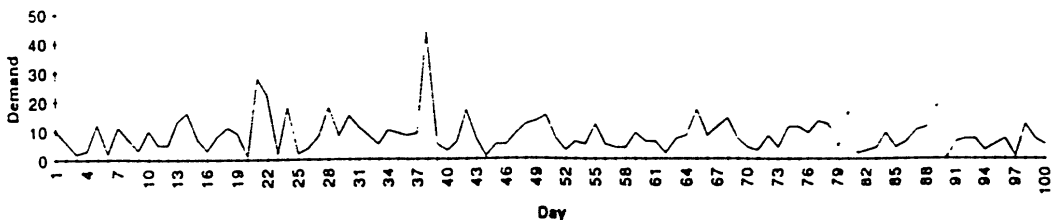
Historical Demand

Factory: A
Part: 6

Std Dev 6.1669
Mean 8.3600

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	10.00	21	28.00	41	6.00	61	8.00	81	2.00
2	6.00	22	22.00	42	17.00	62	2.00	82	3.00
3	2.00	23	2.00	43	7.00	63	1.00	83	4.00
4	3.00	24	18.00	44	1.00	64	8.00	84	9.00
5	12.00	25	2.00	45	5.00	65	11.00	85	4.00
6	2.00	26	4.00	46	5.00	66	8.00	86	6.00
7	11.00	27	9.00	47	9.00	67	11.00	87	10.00
8	7.00	28	18.00	48	12.00	68	14.00	88	11.00
9	3.00	29	8.00	49	13.00	69	7.00	89	19.00
10	10.00	30	15.00	50	15.00	70	4.00	90	0.00
11	5.00	31	11.00	51	7.00	71	3.00	91	6.00
12	5.00	32	8.00	52	3.00	72	8.00	92	7.00
13	13.00	33	5.00	53	6.00	73	4.00	93	7.00
14	16.00	34	10.00	54	5.00	74	11.00	94	3.00
15	7.00	35	9.00	55	12.00	75	11.00	95	5.00
16	3.00	36	8.00	56	5.00	76	9.00	96	7.00
17	8.00	37	9.00	57	4.00	77	13.00	97	1.00
18	11.00	38	44.00	58	4.00	78	12.00	98	12.00
19	9.00	39	5.00	59	9.00	79	4.00	99	7.00
20	1.00	40	3.00	60	6.00	80	11.00	100	5.00

Factory A, Part 6



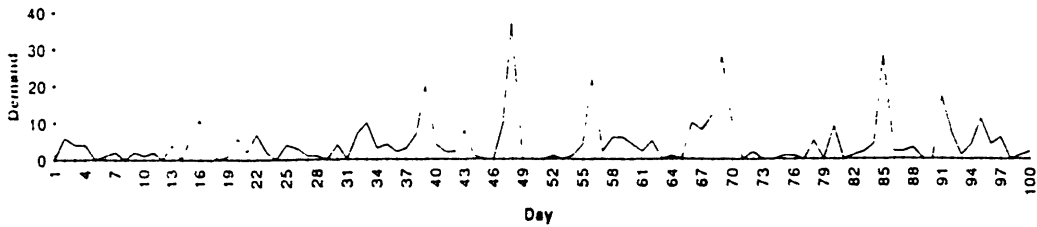
Historical Demand

Factory: A
Part: 8

Std Dev: 6.3686
Mean: 4.3100

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	0.00	21	2.00	41	2.00	61	2.00	81	0.00
2	6.00	22	7.00	42	2.00	62	5.00	82	1.00
3	4.00	23	2.00	43	8.00	63	0.00	83	2.00
4	4.00	24	0.00	44	1.00	64	1.00	84	4.00
5	0.00	25	4.00	45	0.00	65	0.00	85	28.00
6	1.00	26	3.00	46	0.00	66	10.00	86	2.00
7	2.00	27	1.00	47	10.00	67	8.00	87	2.00
8	0.00	28	1.00	48	37.00	68	12.00	88	3.00
9	2.00	29	0.00	49	0.00	69	28.00	89	0.00
10	1.00	30	4.00	50	0.00	70	10.00	90	0.00
11	2.00	31	0.00	51	0.00	71	0.00	91	17.00
12	0.00	32	7.00	52	1.00	72	2.00	92	7.00
13	4.00	33	10.00	53	0.00	73	0.00	93	1.00
14	0.00	34	3.00	54	1.00	74	0.00	94	4.00
15	6.00	35	4.00	55	4.00	75	1.00	95	11.00
16	11.00	36	2.00	56	22.00	76	1.00	96	4.00
17	2.00	37	3.00	57	2.00	77	0.00	97	6.00
18	0.00	38	7.00	58	6.00	78	5.00	98	0.00
19	1.00	39	20.00	59	6.00	79	0.00	99	1.00
20	6.00	40	4.00	60	4.00	80	9.00	100	2.00

Factory A, Part 8



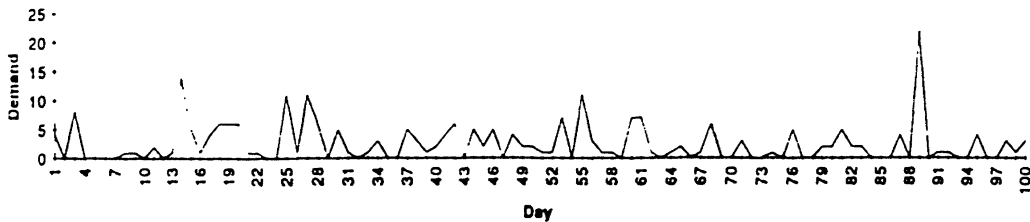
Historical Demand

Factory: A
Part: 9

Std Dev: 3.5118
Mean: 2.5200

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	4.00	21	1.00	41	4.00	61	7.00	81	5.00
2	0.00	22	1.00	42	6.00	62	1.00	82	2.00
3	8.00	23	0.00	43	0.00	63	0.00	83	2.00
4	0.00	24	0.00	44	5.00	64	1.00	84	0.00
5	0.00	25	11.00	45	2.00	65	2.00	85	0.00
6	0.00	26	1.00	46	5.00	66	0.00	86	0.00
7	0.00	27	11.00	47	0.00	67	1.00	87	4.00
8	1.00	28	6.00	48	4.00	68	6.00	88	0.00
9	1.00	29	0.00	49	2.00	69	0.00	89	22.00
10	0.00	30	5.00	50	2.00	70	0.00	90	0.00
11	2.00	31	1.00	51	1.00	71	3.00	91	1.00
12	0.00	32	0.00	52	1.00	72	0.00	92	1.00
13	1.00	33	1.00	53	7.00	73	0.00	93	0.00
14	14.00	34	3.00	54	0.00	74	1.00	94	0.00
15	5.00	35	0.00	55	11.00	75	0.00	95	4.00
16	1.00	36	0.00	56	3.00	76	5.00	96	0.00
17	4.00	37	5.00	57	1.00	77	0.00	97	0.00
18	6.00	38	3.00	58	1.00	78	0.00	98	3.00
19	6.00	39	1.00	59	0.00	79	2.00	99	1.00
20	6.00	40	2.00	60	7.00	80	2.00	100	3.00

Factory A, Part 9

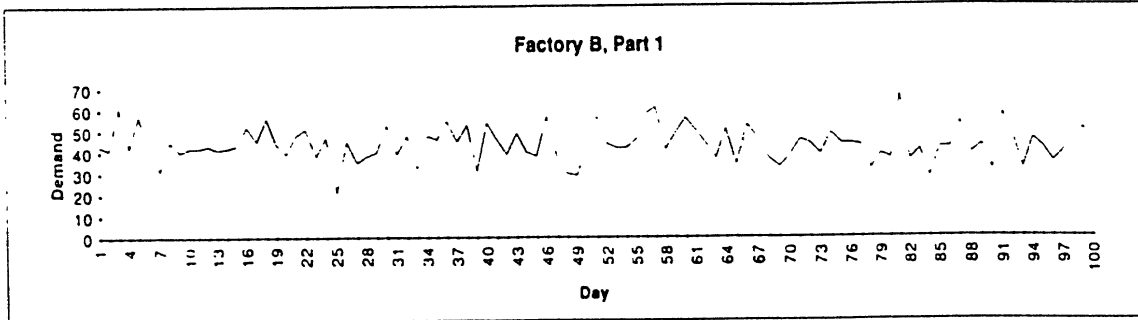


Historical Demand

Factory: B
Part: 1

Std Dev: 8 0976
Mean: 43 6200

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	43 00	21	48 00	41	46 00	61	50 00	81	67 00
2	41 00	22	51 00	42	39 00	62	44 00	82	36 00
3	61 00	23	38 00	43	49 00	63	37 00	83	41 00
4	42 00	24	47 00	44	40 00	64	51 00	84	28 00
5	57 00	25	21 00	45	38 00	65	34 00	85	42 00
6	43 00	26	45 00	46	57 00	66	53 00	86	42 00
7	31 00	27	35 00	47	38 00	67	46 00	87	54 00
8	45 00	28	38 00	48	30 00	68	37 00	88	39 00
9	40 00	29	40 00	49	29 00	69	33 00	89	43 00
10	42 00	30	53 00	50	42 00	70	38 00	90	31 00
11	42 00	31	39 00	51	57 00	71	46 00	91	58 00
12	43 00	32	48 00	52	44 00	72	44 00	92	47 00
13	41 00	33	32 00	53	42 00	73	39 00	93	32 00
14	42 00	34	48 00	54	42 00	74	49 00	94	46 00
15	43 00	35	46 00	55	46 00	75	44 00	95	42 00
16	52 00	36	55 00	56	58 00	76	44 00	96	35 00
17	45 00	37	45 00	57	61 00	77	43 00	97	40 00
18	56 00	38	53 00	58	41 00	78	32 00	98	45 00
19	44 00	39	31 00	59	49 00	79	39 00	99	51 00
20	39 00	40	54 00	60	56 00	80	37 00	100	40 00

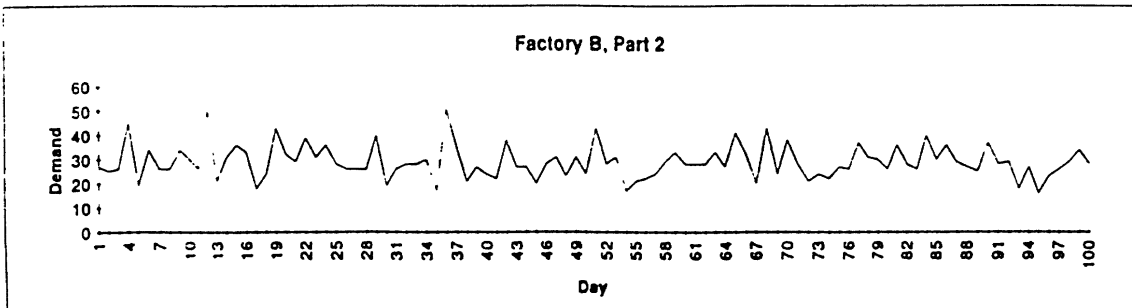


Historical Demand

Factory: B
Part: 2

Std Dev: 7 0058
Mean: 28 9900

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	27 00	21	29 00	41	22 00	61	28 00	81	36 00
2	25 00	22	39 00	42	38 00	62	28 00	82	28 00
3	26 00	23	31 00	43	27 00	63	33 00	83	26 00
4	45 00	24	36 00	44	27 00	64	27 00	84	40 00
5	19 00	25	28 00	45	20 00	65	41 00	85	30 00
6	34 00	26	26 00	46	28 00	66	32 00	86	36 00
7	26 00	27	26 00	47	31 00	67	20 00	87	29 00
8	26 00	28	26 00	48	23 00	68	43 00	88	27 00
9	34 00	29	40 00	49	31 00	69	24 00	89	25 00
10	30 00	30	19 00	50	24 00	70	38 00	90	37 00
11	26 00	31	26 00	51	43 00	71	28 00	91	28 00
12	51 00	32	28 00	52	28 00	72	21 00	92	29 00
13	21 00	33	28 00	53	31 00	73	24 00	93	18 00
14	31 00	34	30 00	54	17 00	74	22 00	94	27 00
15	36 00	35	17 00	55	21 00	75	27 00	95	16 00
16	33 00	36	51 00	56	22 00	76	26 00	96	23 00
17	18 00	37	35 00	57	24 00	77	37 00	97	26 00
18	24 00	38	21 00	58	29 00	78	31 00	98	29 00
19	43 00	39	27 00	59	33 00	79	30 00	99	34 00
20	32 00	40	24 00	60	29 00	80	26 00	100	28 00

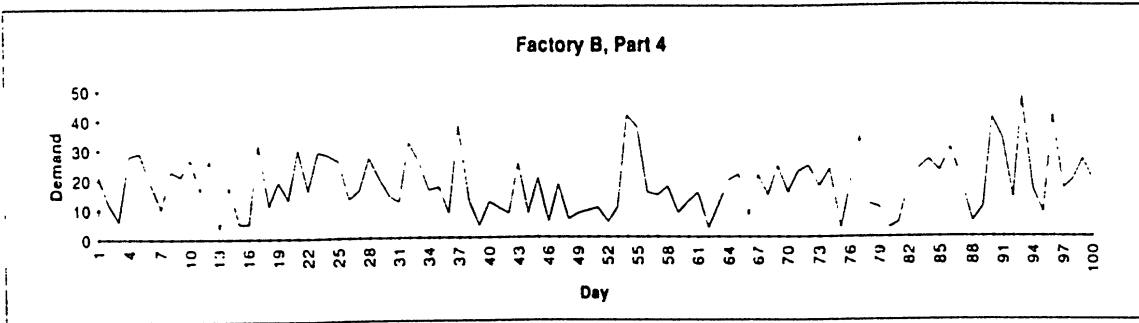


Historical Demand

Factory: B
Part: 4

Std Dev: 9.8510
Mean: 17.7800

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	21.00	21	30.00	41	10.00	61	15.00	81	5.00
2	12.00	22	16.00	42	8.00	62	3.00	82	18.00
3	6.00	23	29.00	43	25.00	63	11.00	83	23.00
4	28.00	24	28.00	44	8.00	64	19.00	84	26.00
5	29.00	25	26.00	45	20.00	65	21.00	85	22.00
6	19.00	26	13.00	46	5.00	66	7.00	86	30.00
7	10.00	27	16.00	47	18.00	67	21.00	87	19.00
8	23.00	28	27.00	48	6.00	68	14.00	88	5.00
9	21.00	29	20.00	49	8.00	69	24.00	89	10.00
10	27.00	30	14.00	50	9.00	70	15.00	90	40.00
11	16.00	31	12.00	51	10.00	71	22.00	91	33.00
12	27.00	32	32.00	52	5.00	72	24.00	92	13.00
13	3.00	33	26.00	53	10.00	73	17.00	93	47.00
14	18.00	34	16.00	54	41.00	74	23.00	94	16.00
15	5.00	35	17.00	55	37.00	75	3.00	95	8.00
16	5.00	36	8.00	56	15.00	76	18.00	96	41.00
17	32.00	37	38.00	57	14.00	77	34.00	97	16.00
18	11.00	38	12.00	58	17.00	78	11.00	98	19.00
19	19.00	39	4.00	59	8.00	79	10.00	99	26.00
20	13.00	40	12.00	60	12.00	80	3.00	100	19.00

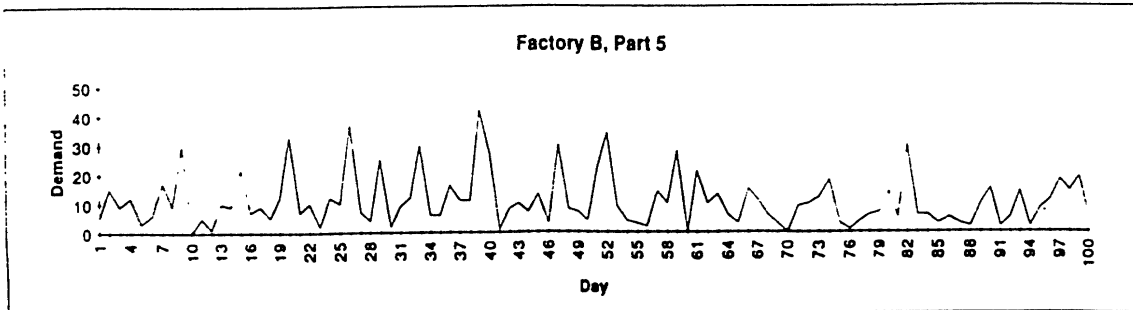


Historical Demand

Factory: B
Part: 5

Std Dev: 8.9667
Mean: 10.7700

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	5.00	21	7.00	41	1.00	61	21.00	81	5.00
2	15.00	22	10.00	42	8.00	62	10.00	82	30.00
3	9.00	23	2.00	43	10.00	63	13.00	83	6.00
4	12.00	24	12.00	44	7.00	64	5.00	84	6.00
5	3.00	25	10.00	45	13.00	65	3.00	85	3.00
6	6.00	26	37.00	46	3.00	66	15.00	86	5.00
7	17.00	27	7.00	47	30.00	67	11.00	87	3.00
8	9.00	28	4.00	48	8.00	68	5.00	88	2.00
9	30.00	29	25.00	49	7.00	69	3.00	89	10.00
10	0.00	30	2.00	50	4.00	70	1.00	90	15.00
11	5.00	31	9.00	51	22.00	71	3.00	91	2.00
12	1.00	32	12.00	52	34.00	72	10.00	92	5.00
13	10.00	33	30.00	53	9.00	73	12.00	93	14.00
14	9.00	34	6.00	54	4.00	74	18.00	94	2.00
15	22.00	35	6.00	55	3.00	75	3.00	95	8.00
16	7.00	36	16.00	56	2.00	76	1.00	96	11.00
17	9.00	37	11.00	57	14.00	77	4.00	97	18.00
18	5.00	38	11.00	58	10.00	78	5.00	98	14.00
19	12.00	39	42.00	59	28.00	79	1.00	99	19.00
20	33.00	40	27.00	60	0.00	80	14.00	100	5.00



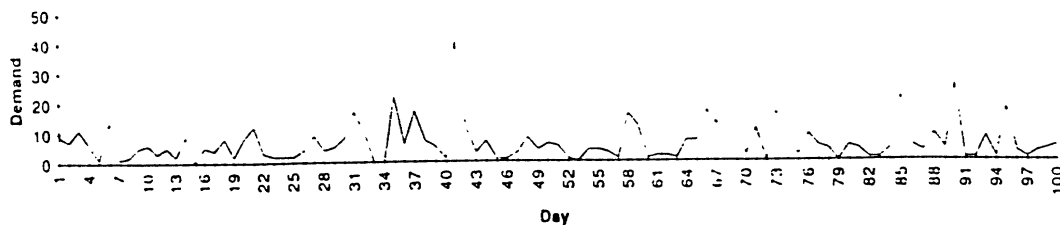
Historical Demand

Factory: B
Part: 7

Std Dev 6.8202
Mean 6.4900

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	3.00	21	12.00	41	41.00	61	2.00	81	4.00
2	7.00	22	3.00	42	11.00	62	2.00	82	1.00
3	11.00	23	2.00	43	3.00	63	1.00	83	1.00
4	6.00	24	2.00	44	7.00	64	7.00	84	4.00
5	1.00	25	2.00	45	1.00	65	7.00	85	22.00
6	14.00	26	4.00	46	1.00	66	17.00	86	5.00
7	1.00	27	9.00	47	3.00	67	12.00	87	3.00
8	2.00	28	4.00	48	8.00	68	29.00	88	9.00
9	5.00	29	5.00	49	4.00	69	11.00	89	4.00
10	6.00	30	8.00	50	6.00	70	2.00	90	26.00
11	3.00	31	7.00	51	5.00	71	11.00	91	1.00
12	5.00	32	10.00	52	1.00	72	0.00	92	1.00
13	2.00	33	0.00	53	0.00	73	17.00	93	8.00
14	9.00	34	0.00	54	4.00	74	6.00	94	1.00
15	0.00	35	22.00	55	4.00	75	2.00	95	18.00
16	5.00	36	6.00	56	3.00	76	9.00	96	3.00
17	4.00	37	17.00	57	1.00	77	5.00	97	1.00
18	8.00	38	7.00	58	16.00	78	4.00	98	3.00
19	2.00	39	5.00	59	12.00	79	0.00	99	4.00
20	8.00	40	1.00	60	1.00	80	5.00	100	5.00

Factory B, Part 7



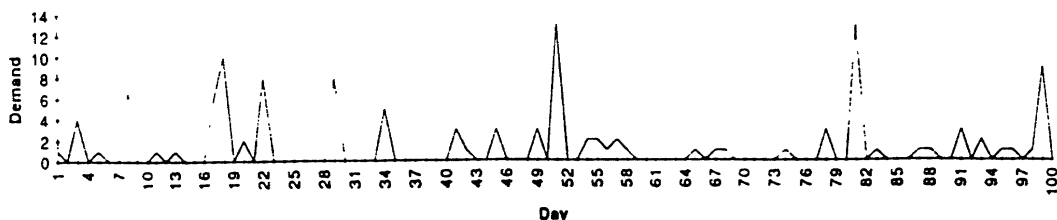
Historical Demand

Factory: B
Part: 10

Std Dev 2.6567
Mean 1.2500

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	1.00	21	0.00	41	3.00	61	0.00	81	3.00
2	0.00	22	8.00	42	1.00	62	0.00	82	0.00
3	4.00	23	0.00	43	0.00	63	0.00	83	1.00
4	0.00	24	0.00	44	0.00	64	0.00	84	0.00
5	1.00	25	0.00	45	3.00	65	1.00	85	0.00
6	0.00	26	0.00	46	0.00	66	0.00	86	0.00
7	0.00	27	0.00	47	0.00	67	1.00	87	1.00
8	7.00	28	0.00	48	0.00	68	1.00	88	1.00
9	0.00	29	9.00	49	3.00	69	0.00	89	0.00
10	0.00	30	0.00	50	0.00	70	0.00	90	0.00
11	1.00	31	0.00	51	13.00	71	0.00	91	3.00
12	0.00	32	0.00	52	0.00	72	0.00	92	0.00
13	1.00	33	0.00	53	0.00	73	0.00	93	2.00
14	0.00	34	5.00	54	2.00	74	1.00	94	0.00
15	0.00	35	0.00	55	2.00	75	0.00	95	1.00
16	0.00	36	0.00	56	1.00	76	0.00	96	1.00
17	5.00	37	0.00	57	2.00	77	0.00	97	0.00
18	10.00	38	0.00	58	1.00	78	3.00	98	1.00
19	0.00	39	0.00	59	0.00	79	0.00	99	0.00
20	2.00	40	0.00	60	0.00	80	0.00	100	0.00

Factory B, Part 10



Appendix

(Production by Factory)

Historical Run Times

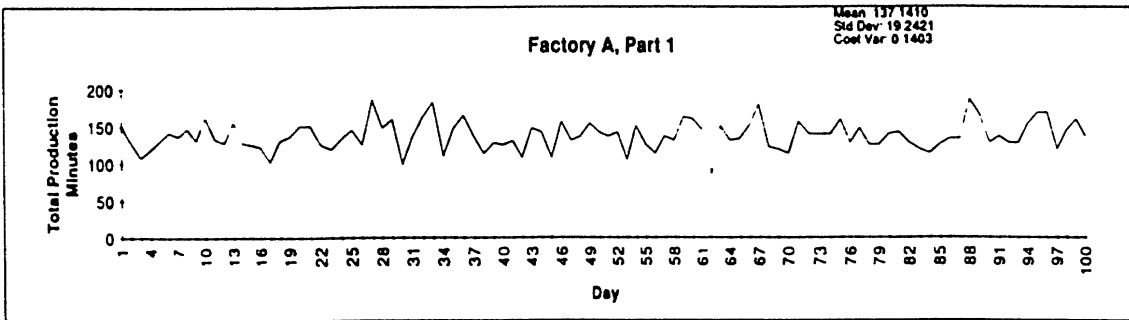
Day	Factory		Day	Factory		Day	Factory		Day	Factory		
	A	B		A	B		A	B		A	B	
1	386.80	323.00	26	280.50	389.50	51	303.60	474.10	76	395.80	294.70	
2	281.80	305.90	27	393.80	284.10	52	305.70	345.80	77	309.90	372.20	
3	278.70	357.10	28	453.80	299.20	53	341.90	274.10	78	366.90	266.70	
4	236.90	405.80	29	354.10	437.50	54	329.60	337.20	79	326.10	255.70	
5	366.60	328.00	30	376.60	286.00	55	425.80	344.10	80	349.90	258.20	
6	385.10	354.60	31	373.00	318.30	56	359.90	298.70	81	296.00	402.00	
7	385.70	259.90	32	348.80	398.80	57	288.40	349.20	82	298.30	351.00	
8	349.30	347.80	33	398.80	361.80	58	381.10	353.30	83	321.50	295.50	
9	282.30	404.20	34	306.80	319.10	59	388.80	403.00	84	301.10	317.00	
10	339.60	315.60	35	438.20	334.40	60	445.90	282.80	85	375.20	367.70	
11	271.20	279.60	36	330.10	410.20	61	380.60	352.70	86	403.00	357.10	
12	290.30	381.30	37	340.60	452.30	62	212.60	259.00	87	404.70	324.80	
13	445.90	234.10	38	427.70	313.50	63	317.20	286.90	88	361.20	250.10	
14	399.20	332.10	39	430.30	345.60	64	311.10	330.80	89	435.70	276.80	
15	317.80	321.40	40	365.40	359.70	65	344.90	325.60	90	239.20	471.90	
16	344.10	303.10	41	270.40	391.40	66	354.50	380.50	91	319.70	376.10	
17	313.30	355.30	42	357.70	320.90	67	433.70	342.20	92	323.90	281.30	
18	346.90	355.30	43	374.90	344.00	68	392.80	407.30	93	235.70	380.80	
19	309.30	362.20	44	305.60	268.30	69	407.50	291.30	94	321.30	271.60	
20	318.20	400.10	45	290.40	293.00	70	284.60	275.60	95	356.60	288.50	
21	403.10	385.10	46	379.60	273.70	71	296.60	354.30	96	343.20	352.00	
22	331.70	392.80	47	449.20	372.80	72	369.10	298.00	97	249.90	307.80	
23	328.40	306.40	48	497.40	229.00	73	298.50	338.80	98	355.90	338.10	
24	321.70	378.40	49	367.10	252.20	74	335.60	365.90	99	293.30	449.40	
25	362.50	268.20	50	374.70	254.00	75	371.10	231.50	100	327.70	292.30	
										Average:	346.75	332.69

Daily Production Minutes

Factory: A
Part: 1

Std Dev: 19.2421
Mean: 137.1410

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	150.80	21	150.80	41	130.50	61	145.00	81	142.10
2	127.60	22	124.70	42	107.30	62	84.10	82	127.60
3	107.30	23	118.90	43	147.90	63	150.80	83	118.90
4	118.90	24	133.40	44	142.10	64	130.50	84	113.10
5	130.50	25	145.00	45	107.30	65	133.40	85	124.70
6	142.10	26	124.70	46	156.60	66	150.80	86	133.40
7	138.30	27	185.60	47	130.50	67	179.80	87	133.40
8	147.90	28	147.90	48	136.30	68	121.80	88	185.60
9	130.50	29	159.50	49	153.70	69	118.90	89	165.30
10	162.40	30	98.60	50	142.10	70	113.10	90	127.60
11	133.40	31	136.30	51	136.30	71	156.60	91	136.30
12	127.60	32	162.40	52	142.10	72	139.20	92	127.60
13	156.60	33	182.70	53	104.40	73	139.20	93	127.60
14	127.60	34	110.20	54	150.80	74	139.20	94	153.70
15	124.70	35	147.90	55	124.70	75	159.50	95	168.20
16	121.80	36	165.30	56	113.10	76	127.60	96	168.20
17	101.50	37	136.30	57	136.30	77	147.90	97	118.90
18	130.50	38	113.10	58	130.50	78	124.70	98	145.00
19	136.30	39	127.60	59	162.40	79	124.70	99	159.50
20	150.80	40	124.70	60	159.50	80	139.20	100	136.30

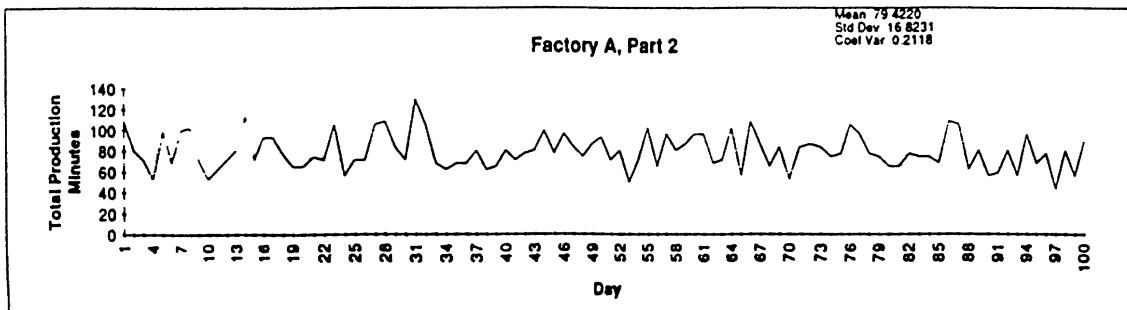


Daily Production Minutes

Factory: A
Part: 2

Std Dev: 16.8231
Mean: 79.4220

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	108.50	21	74.40	41	71.30	61	96.10	81	65.10
2	80.60	22	71.30	42	77.50	62	68.20	82	77.50
3	71.30	23	105.40	43	80.60	63	71.30	83	74.40
4	52.70	24	55.80	44	99.20	64	102.30	84	74.40
5	99.20	25	71.30	45	77.50	65	55.80	85	68.20
6	68.20	26	71.30	46	96.10	66	108.50	86	108.50
7	99.20	27	105.40	47	83.70	67	86.80	87	105.40
8	102.30	28	108.50	48	74.40	68	65.10	88	62.00
9	71.30	29	83.70	49	86.80	69	83.70	89	80.60
10	52.70	30	71.30	50	93.00	70	52.70	90	55.80
11	62.00	31	130.20	51	71.30	71	83.70	91	58.90
12	71.30	32	105.40	52	80.60	72	86.80	92	80.60
13	80.60	33	68.20	53	49.60	73	83.70	93	55.80
14	114.70	34	62.00	54	71.30	74	74.40	94	96.10
15	71.30	35	68.20	55	102.30	75	77.50	95	68.20
16	93.00	36	68.20	56	65.10	76	105.40	96	77.50
17	93.00	37	80.60	57	96.10	77	96.10	97	43.40
18	77.50	38	62.00	58	80.60	78	77.50	98	80.60
19	65.10	39	65.10	59	86.80	79	74.40	99	55.80
20	65.10	40	80.60	60	96.10	80	65.10	100	89.90

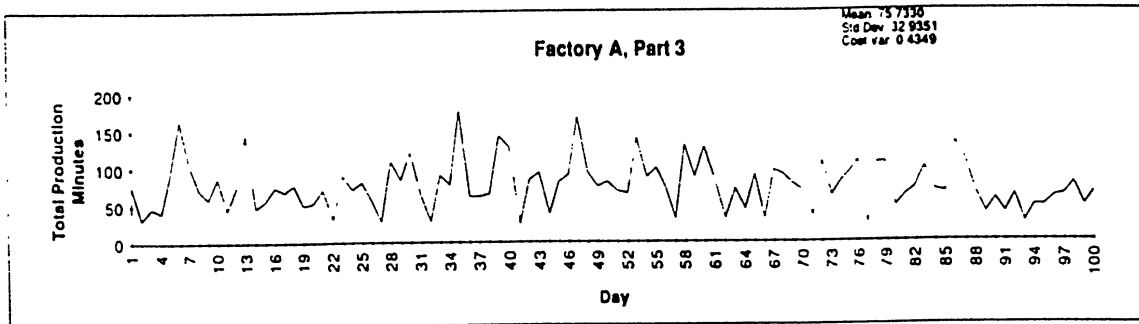


Daily Production Minutes

Factory: A
Part: 3

Std Dev 32 9351
Mean 75 7330

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	77.50	21	71.30	41	24.80	61	83.70	81	62.00
2	31.00	22	31.00	42	83.70	62	31.00	82	71.30
3	46.50	23	89.90	43	93.00	63	71.30	83	99.20
4	40.30	24	71.30	44	37.20	64	43.40	84	68.20
5	96.10	25	80.60	45	80.60	65	89.90	85	65.10
6	164.30	26	55.80	46	89.90	66	31.00	86	133.30
7	105.40	27	27.90	47	167.40	67	96.10	87	108.50
8	71.30	28	108.50	48	93.00	68	89.90	88	65.10
9	58.90	29	83.70	49	74.40	69	77.50	89	37.20
10	86.80	30	120.90	50	80.60	70	68.20	90	55.80
11	43.40	31	65.10	51	68.20	71	34.10	91	37.20
12	74.40	32	27.90	52	65.10	72	108.50	92	62.00
13	145.70	33	89.90	53	139.50	73	62.00	93	24.80
14	46.50	34	77.50	54	86.80	74	80.60	94	46.50
15	55.80	35	176.70	55	99.20	75	93.00	95	46.50
16	74.40	36	62.00	56	71.30	76	108.50	96	58.90
17	68.20	37	62.00	57	31.00	77	21.70	97	62.00
18	77.50	38	65.10	58	130.20	78	105.40	98	77.50
19	49.60	39	142.60	59	86.80	79	105.40	99	46.50
20	52.70	40	127.10	60	127.10	80	46.50	100	65.10

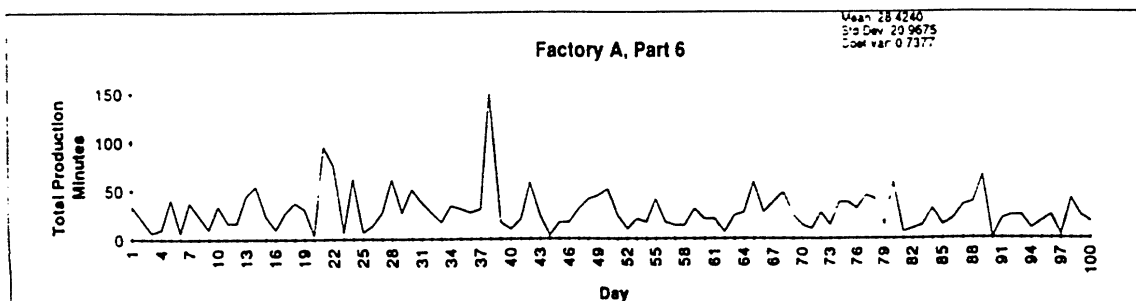


Daily Production Minutes

Factory: A
Part: 6

Std Dev 20 9675
Mean 28 4240

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	34.00	21	95.20	41	20.40	61	20.40	81	6.80
2	20.40	22	74.80	42	57.80	62	6.80	82	10.20
3	6.80	23	6.80	43	23.80	63	23.80	83	13.60
4	10.20	24	61.20	44	3.40	64	27.20	84	30.60
5	40.80	25	6.80	45	17.00	65	57.80	85	13.60
6	6.80	26	13.60	46	17.00	66	27.20	86	20.40
7	37.40	27	27.20	47	30.60	67	37.40	87	34.00
8	23.80	28	61.20	48	40.80	68	47.60	88	37.40
9	10.20	29	27.20	49	44.20	69	23.80	89	64.60
10	34.00	30	51.00	50	51.00	70	13.60	90	0.00
11	17.00	31	37.40	51	23.80	71	10.20	91	20.40
12	17.00	32	27.20	52	10.20	72	27.20	92	23.80
13	44.20	33	17.00	53	20.40	73	13.60	93	23.80
14	54.40	34	34.00	54	17.00	74	37.40	94	10.20
15	23.80	35	30.60	55	40.80	75	37.40	95	17.00
16	10.20	36	27.20	56	17.00	76	30.60	96	23.80
17	27.20	37	30.60	57	13.60	77	24.20	97	3.40
18	37.40	38	149.60	58	13.60	78	40.80	98	40.80
19	30.60	39	17.00	59	30.60	79	13.60	99	23.80
20	3.40	40	10.20	60	20.40	80	57.80	100	17.00

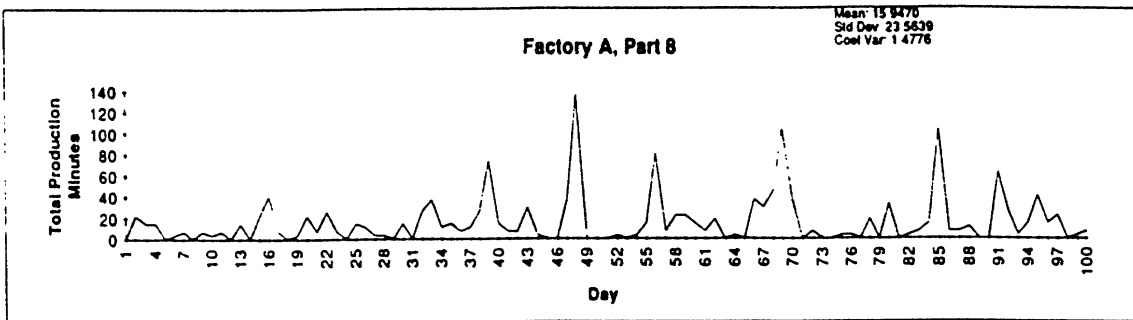


Daily Production Minutes

Factory: A
Part: 8

Std Dev: 23.5639
Mean: 15.9470

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	0.00	21	7.40	41	7.40	61	7.40	81	0.00
2	22.20	22	25.90	42	7.40	62	18.50	82	3.70
3	14.80	23	7.40	43	29.60	63	0.00	83	7.40
4	14.80	24	0.00	44	3.70	64	3.70	84	14.80
5	0.00	25	14.80	45	0.00	65	0.00	85	103.60
6	3.70	26	11.10	46	0.00	66	37.00	86	7.40
7	7.40	27	3.70	47	37.00	67	29.60	87	7.40
8	0.00	28	3.70	48	136.90	68	44.40	88	11.10
9	7.40	29	0.00	49	0.00	69	103.60	89	0.00
10	3.70	30	14.80	50	0.00	70	37.00	90	0.00
11	7.40	31	0.00	51	0.00	71	0.00	91	62.90
12	0.00	32	25.90	52	3.70	72	7.40	92	25.90
13	14.80	33	37.00	53	0.00	73	0.00	93	3.70
14	0.00	34	11.10	54	3.70	74	0.00	94	14.80
15	22.20	35	14.80	55	14.80	75	3.70	95	40.70
16	40.70	36	7.40	56	81.40	76	3.70	96	14.80
17	7.40	37	11.10	57	7.40	77	0.00	97	22.20
18	0.00	38	25.90	58	22.20	78	18.50	98	0.00
19	3.70	39	74.00	59	22.20	79	0.00	99	3.70
20	22.20	40	14.80	60	14.80	80	33.30	100	7.40

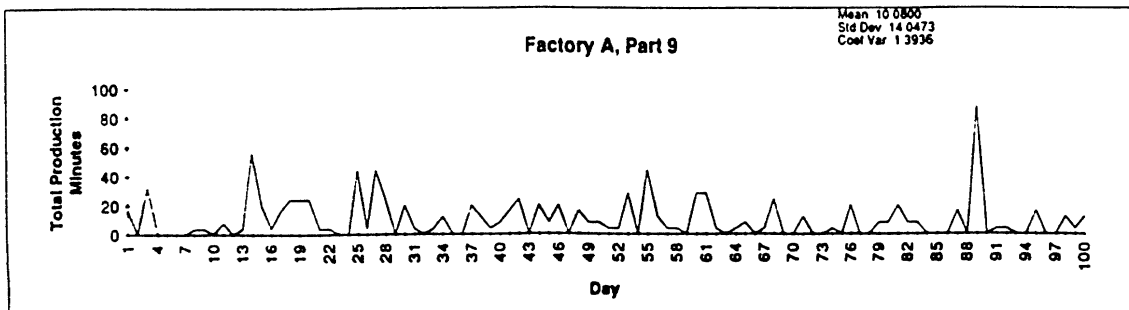


Daily Production Minutes

Factory: A
Part: 9

Std Dev: 14.0473
Mean: 10.0800

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	16.00	21	4.00	41	16.00	61	28.00	81	20.00
2	0.00	22	4.00	42	24.00	62	4.00	82	8.00
3	32.00	23	0.00	43	0.00	63	0.00	83	8.00
4	0.00	24	0.00	44	20.00	64	4.00	84	0.00
5	0.00	25	44.00	45	8.00	65	8.00	85	0.00
6	0.00	26	4.00	46	20.00	66	0.00	86	0.00
7	0.00	27	44.00	47	0.00	67	4.00	87	16.00
8	4.00	28	24.00	48	16.00	68	24.00	88	0.00
9	4.00	29	0.00	49	8.00	69	0.00	89	88.00
10	0.00	30	20.00	50	8.00	70	0.00	90	0.00
11	8.00	31	4.00	51	4.00	71	12.00	91	4.00
12	0.00	32	0.00	52	4.00	72	0.00	92	4.00
13	4.00	33	4.00	53	28.00	73	0.00	93	0.00
14	56.00	34	12.00	54	0.00	74	4.00	94	0.00
15	20.00	35	0.00	55	44.00	75	0.00	95	16.00
16	4.00	36	0.00	56	12.00	76	20.00	96	0.00
17	16.00	37	20.00	57	4.00	77	0.00	97	0.00
18	24.00	38	12.00	58	4.00	78	0.00	98	12.00
19	24.00	39	4.00	59	0.00	79	8.00	99	4.00
20	24.00	40	8.00	60	28.00	80	8.00	100	12.00

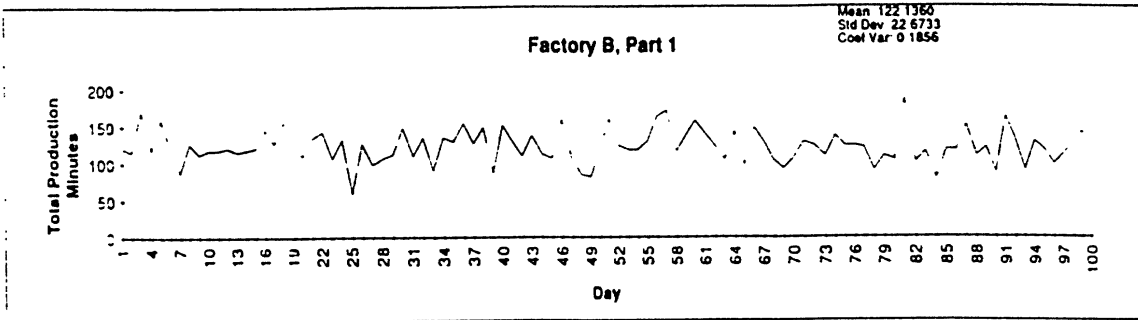


Daily Production Minutes

Factory: B
Part: 1

Std Dev 22.6733
Mean 122.1360

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	20.40	21	134.40	41	128.80	61	140.00	81	187.60
2	14.80	22	142.80	42	109.20	62	123.20	82	100.80
3	70.80	23	106.40	43	137.20	63	103.60	83	114.80
4	117.60	24	131.60	44	112.00	64	142.80	84	78.40
5	59.60	25	58.80	45	106.40	65	95.20	85	117.60
6	20.40	26	126.00	46	159.60	66	148.40	86	117.60
7	36.80	27	98.00	47	106.40	67	128.80	87	151.20
8	26.00	28	106.40	48	84.00	68	103.60	88	109.20
9	12.00	29	112.00	49	81.20	69	92.40	89	120.40
10	17.60	30	148.40	50	117.60	70	106.40	90	86.80
11	17.60	31	109.20	51	159.60	71	128.80	91	162.40
12	20.40	32	134.40	52	123.20	72	123.20	92	131.60
13	14.80	33	89.60	53	117.60	73	109.20	93	89.60
14	117.60	34	134.40	54	117.60	74	137.20	94	128.80
15	20.40	35	128.80	55	128.80	75	123.20	95	117.60
16	45.60	36	154.00	56	162.40	76	123.20	96	98.00
17	26.00	37	126.00	57	170.80	77	120.40	97	112.00
18	56.80	38	148.40	58	114.80	78	89.60	98	126.00
19	23.20	39	86.80	59	137.20	79	109.20	99	142.80
20	99.20	40	151.20	60	156.80	80	103.60	100	112.00

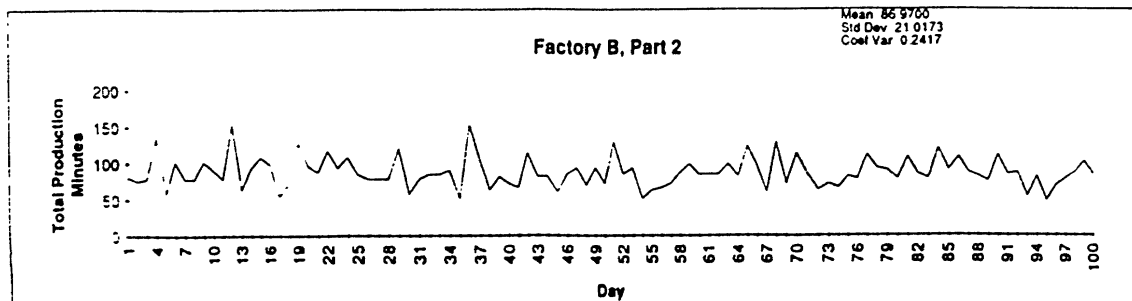


Daily Production Minutes

Factory: B
Part: 2

Std Dev 21.0173
Mean 86.9700

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	31.00	21	87.00	41	66.00	61	84.00	81	108.00
2	75.00	22	117.00	42	114.00	62	84.00	82	84.00
3	78.00	23	93.00	43	81.00	63	99.00	83	78.00
4	35.00	24	108.00	44	81.00	64	81.00	84	120.00
5	57.00	25	84.00	45	60.00	65	123.00	85	90.00
6	132.00	26	78.00	46	84.00	66	96.00	86	108.00
7	73.00	27	78.00	47	93.00	67	60.00	87	87.00
8	73.00	28	78.00	48	69.00	68	129.00	88	81.00
9	132.00	29	120.00	49	93.00	69	72.00	89	75.00
10	30.00	30	57.00	50	72.00	70	114.00	90	111.00
11	78.00	31	78.00	51	129.00	71	84.00	91	84.00
12	53.00	32	84.00	52	84.00	72	63.00	92	87.00
13	63.00	33	84.00	53	93.00	73	72.00	93	54.00
14	33.00	34	90.00	54	51.00	74	66.00	94	81.00
15	108.00	35	51.00	55	63.00	75	81.00	95	48.00
16	39.00	36	153.00	56	66.00	76	78.00	96	69.00
17	54.00	37	105.00	57	72.00	77	111.00	97	78.00
18	72.00	38	63.00	58	87.00	78	93.00	98	87.00
19	29.00	39	31.00	59	39.00	79	90.00	99	102.00
20	35.00	40	72.00	60	84.00	80	78.00	100	84.00

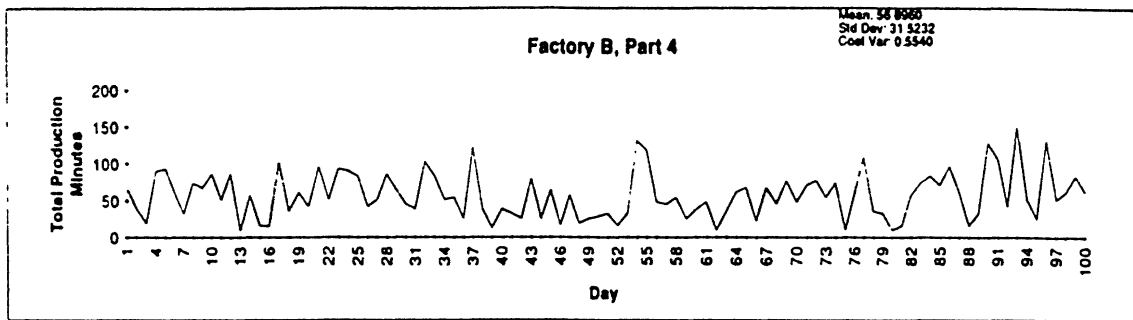


Daily Production Minutes

Factory: B
Part: 4

Std Dev: 31.5232
Mean: 56.8960

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	67.20	21	96.00	41	32.00	61	48.00	81	16.00
2	38.40	22	51.20	42	25.60	62	9.60	82	57.60
3	19.20	23	92.80	43	80.00	63	35.20	83	73.60
4	89.60	24	89.60	44	25.60	64	60.80	84	83.20
5	92.80	25	83.20	45	64.00	65	67.20	85	70.40
6	60.80	26	41.60	46	16.00	66	22.40	86	96.00
7	32.00	27	51.20	47	57.60	67	67.20	87	60.80
8	73.60	28	86.40	48	19.20	68	44.80	88	16.00
9	67.20	29	64.00	49	25.60	69	76.80	89	32.00
10	86.40	30	44.80	50	28.80	70	48.00	90	128.00
11	51.20	31	38.40	51	32.00	71	70.40	91	105.60
12	86.40	32	102.40	52	16.00	72	76.80	92	41.60
13	9.60	33	83.20	53	32.00	73	54.40	93	150.40
14	57.60	34	51.20	54	131.20	74	73.60	94	51.20
15	16.00	35	54.40	55	118.40	75	9.60	95	25.60
16	16.00	36	25.60	56	48.00	76	57.60	96	131.20
17	102.40	37	121.60	57	44.80	77	106.80	97	51.20
18	35.20	38	38.40	58	54.40	78	35.20	98	60.80
19	60.80	39	12.80	59	25.60	79	32.00	99	83.20
20	41.60	40	38.40	60	38.40	80	9.60	100	60.80

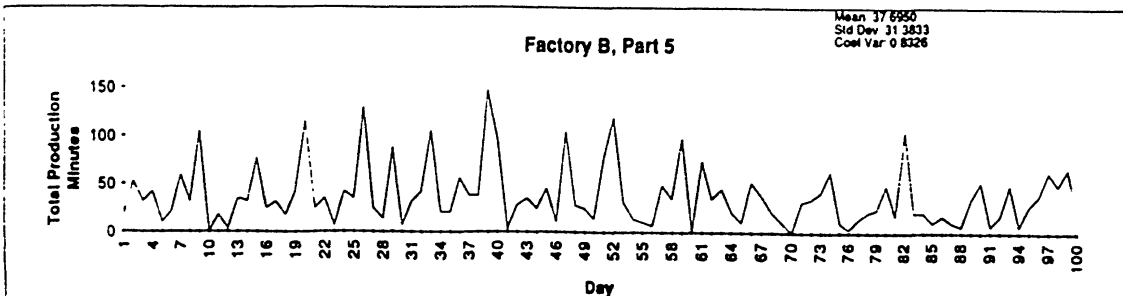


Daily Production Minutes

Factory: B
Part: 5

Std Dev: 31.3833
Mean: 37.6950

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	17.50	21	24.50	41	3.50	61	73.50	81	17.50
2	52.50	22	35.00	42	28.00	62	35.00	82	105.00
3	31.50	23	7.00	43	35.00	63	45.50	83	21.00
4	42.00	24	42.00	44	24.50	64	21.00	84	21.00
5	10.50	25	35.00	45	45.50	65	10.50	85	10.50
6	21.00	26	129.50	46	10.50	66	52.50	86	17.50
7	59.50	27	24.50	47	105.00	67	38.50	87	10.50
8	31.50	28	14.00	48	28.00	68	21.00	88	7.00
9	105.00	29	87.50	49	24.50	69	10.50	89	35.00
10	0.00	30	7.00	50	14.00	70	0.00	90	52.50
11	17.50	31	31.50	51	77.00	71	31.50	91	7.00
12	3.50	32	42.00	52	119.00	72	35.00	92	17.50
13	35.00	33	105.00	53	31.50	73	42.00	93	49.00
14	31.50	34	21.00	54	14.00	74	63.00	94	7.00
15	77.00	35	21.00	55	10.50	75	10.50	95	28.00
16	24.50	36	56.00	56	7.00	76	3.50	96	38.50
17	31.50	37	38.50	57	49.00	77	14.00	97	63.00
18	17.50	38	38.50	58	35.00	78	21.00	98	49.00
19	42.00	39	147.00	59	98.00	79	24.50	99	66.50
20	115.50	40	94.50	60	0.00	80	49.00	100	17.50

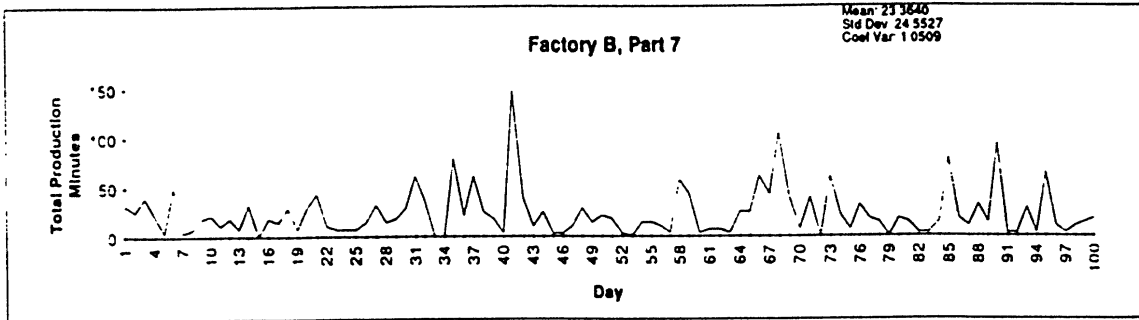


Daily Production Minutes

Factory: B
Part: 7

Std Dev 24 5527
Mean 23 3640

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	32.40	21	43.20	41	147.60	61	7.20	81	14.40
2	25.20	22	10.80	42	39.60	62	7.20	82	3.60
3	39.60	23	7.20	43	10.80	63	3.60	83	3.60
4	21.60	24	7.20	44	25.20	64	25.20	84	14.40
5	3.60	25	7.20	45	3.60	65	25.20	85	79.20
6	50.40	26	14.40	46	3.60	66	61.20	86	18.00
7	3.60	27	32.40	47	10.80	67	43.20	87	10.80
8	7.20	28	14.40	48	28.80	68	104.40	88	32.40
9	18.00	29	18.00	49	14.40	69	39.60	89	14.40
10	21.60	30	28.80	50	21.60	70	7.20	90	93.60
11	10.80	31	61.20	51	18.00	71	39.60	91	3.60
12	18.00	32	36.00	52	3.60	72	0.00	92	3.60
13	7.20	33	0.00	53	0.00	73	61.20	93	28.80
14	32.40	34	0.00	54	14.40	74	21.60	94	3.60
15	0.00	35	79.20	55	14.40	75	7.20	95	64.80
16	18.00	36	21.60	56	10.80	76	32.40	96	10.80
17	14.40	37	61.20	57	3.60	77	18.00	97	3.60
18	28.80	38	25.20	58	57.60	78	14.40	98	10.80
19	7.20	39	18.00	59	43.20	79	0.00	99	14.40
20	28.80	40	3.60	60	3.60	80	18.00	100	18.00



Daily Production Minutes

Factory: B
Part: 10

Std Dev 11 9552
Mean 5 6250

Day	Demand	Day	Demand	Day	Demand	Day	Demand	Day	Demand
1	4.50	21	0.00	41	13.50	61	0.00	81	58.50
2	0.00	22	36.00	42	4.50	62	0.00	82	0.00
3	18.00	23	0.00	43	0.00	63	0.00	83	4.50
4	0.00	24	0.00	44	0.00	64	0.00	84	0.00
5	4.50	25	0.00	45	13.50	65	4.50	85	0.00
6	0.00	26	0.00	46	0.00	66	0.00	86	0.00
7	0.00	27	0.00	47	0.00	67	4.50	87	4.50
8	31.50	28	0.00	48	0.00	68	4.50	88	4.50
9	0.00	29	36.00	49	13.50	69	0.00	89	0.00
10	0.00	30	0.00	50	0.00	70	0.00	90	0.00
11	4.50	31	0.00	51	58.50	71	0.00	91	13.50
12	0.00	32	0.00	52	0.00	72	0.00	92	0.00
13	4.50	33	0.00	53	0.00	73	0.00	93	9.00
14	0.00	34	22.50	54	9.00	74	4.50	94	0.00
15	0.00	35	0.00	55	9.00	75	0.00	95	4.50
16	0.00	36	0.00	56	4.50	76	0.00	96	4.50
17	27.00	37	0.00	57	9.00	77	0.00	97	0.00
18	45.00	38	0.00	58	4.50	78	13.50	98	4.50
19	0.00	39	0.00	59	0.00	79	0.00	99	40.50
20	9.00	40	0.00	60	0.00	80	0.00	100	0.00

