ACTIVITY SOLUTION: PROCESS CAPABILITY RE-ANALYSIS

GUIDELINES:

YOU HAVE IMPLEMENTED ALL THE ACTIONS FOR YOUR PROJECT AND HAVE STARTED OBSERVING IMPROVEMENT

CALCULATE THE SIGMA LEVEL OF YOUR IMPROVED PROCESS

ACTIVITY:

At Matrix Corp., the Quality Auditors capture the late arrival data of employees of the improved process. Of the 300 samples for past 3 months, they identify that employees were late 33 times. If an employee does not arrive on time at work on a particular day, that instance is considered as a Defect.

Calculate the Sigma Level of this process.

SIGMA CONVERSION TABLE

Sigma	DPMO	Sigma	DPMO	Sigma	DPMO
0.1	919243.3	2.1	274253.1	4.1	4661.2
0.2	903199.5	2.2	241963.6	4.2	3467
0.3	884930.3	2.3	211855.3	4.3	2555.2
0.4	864333.9	2.4	184060.1	4.4	1865.9
0.5	841344.7	2.5	158655.3	4.5	1350
0.6	815939.9	2.6	135666.1	4.6	967.7
0.7	788144.7	2.7	115069.7	4.7	687.2
0.8	758036.4	2.8	96800.5	4.8	483.5
0.9	725746.9	2.9	80756.7	4.9	337
1	691462.5	3	66807.2	5	232.7
1.1	655421.7	3.1	54799.3	5.1	159.1
1.2	617911.4	3.2	44565.4	5.2	107.8
1.3	579259.7	3.3	35930.3	5.3	72.4
1.4	539827.9	3.4	28716.5	5.4	48.1
1.5	500000.0	3.5	22750.1	5.5	31.7
1.6	460172.1	3.6	17864.4	5.6	20.7
1.7	420740.3	3.7	13903.4	5.7	13.4
1.8	382088.6	3.8	10724.1	5.8	8.5
1.9	344578.3	3.9	8197.5	5.9	5.4
2	308537.5	4	6209.7	6	3.4

ACTIVITY 02 SOLUTION:

At Matrix Corp., the Quality Auditors capture the late arrival data of employees of the improved process. Of the 300 samples for past 3 months, they identify that employees were late 33 times. If an employee does not arrive on time at work on a particular day, that instance is considered as a Defect.

Calculate the Sigma Level of this process.

- **No. of Units? 300**
- **No. of Opportunities of Errors? 1**
- **No. of Defects? 33**
- **DPO = D / (O*U) = 270 / (1*300) = 0.11**
- **DPMO = 1,000,000 * DPO = 1,000,000 * 0.11 = 110,000**
- **SIGMA VALUE has improved from 0.2 SIGMA to 2.7 SIGMA**