

Six Sigma



Item	Discussion								
Definition	<ul style="list-style-type: none"> • Quality program usually associated with Motorola • Method for achieving a virtually defect-free quality level • Six Sigma is a statistical term that translates to 3.4 defects per 1 million opportunities • In a standard distribution around a bell curve of events, the sigma is the y axis of the area under the curve. 								
Six sigma quality	Objective: Virtually zero defects in everything we do Strategy: Develop and implement a roadmap to reduce defect levels								
Metric in PPM (parts per million)	(Total amount of defects that you experience in a unit/ total defect opportunities per unit) x 10⁶								
Defects	<ul style="list-style-type: none"> • Any variation of a customers (internal & external) requirement large enough to cause a dissatisfaction • They occur in all areas besides just products. The can be found in the service provided, the manuals and support and the employee and management service received 								
Defect elimination	Have the sources of variability been found and eliminated. Each process or products have the potential for variability in the execution of the item. One must understand each product and process and look for ways to remove those variability's.								
Calculations	<div style="display: flex; align-items: center; justify-content: center;"> <div style="margin-right: 20px;"> </div> <table border="1" style="border-collapse: collapse; text-align: center;"> <tbody> <tr> <td>3 sigma</td> <td>70,000 ppm</td> </tr> <tr> <td>4 sigma</td> <td>6,000 ppm</td> </tr> <tr> <td>5 sigma</td> <td>400 ppm</td> </tr> <tr> <td>6 sigma</td> <td>3.4 ppm</td> </tr> </tbody> </table> </div>	3 sigma	70,000 ppm	4 sigma	6,000 ppm	5 sigma	400 ppm	6 sigma	3.4 ppm
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