

## Answer on Question #46488 – Math – Statistics and Probability

### **Problem.**

Explain the concept of variation and distinguish between chance cause variation and assignable cause variation.

### **Solution:**

Variation is measure how far a set of result is spread out.

Common causes of variation inherent in the system itself. They are always present and effect the output of the process. Examples of common causes of variation are poor training and poor workstation design.

Special (Assignable) causes of variation are problems that arise in a periodic fashion. They are somewhat unpredictable and can be dealt at the machine or operator level. Examples of special causes are operator error and broken tools.