PMC
Gage Variation Study Worksheet (Long Method)

	1	2	3	4	5	6	7	8	9	10	11	12
Operator	A				B				C			
Sample #	Trial 1	Trial 2	Trial 3	Range	Trial 1	Trial 2	Trial 3	Range	Trial 1	Trial 2	Trial 3	Range
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
Totals												

R_A

R_B

R_C

Sum

Sum

Sum

X_A

X_B

X_C

UNCONTROLLED

PFQ46
Page 1 of 2

Rev. A
08/13/99

Gage Variation Study Worksheet (Long Method)

Table 1

R_A	
R_B	
R_C	
Sum	
R *	

*Transfer result to "Report" sheet

Table 2

# Trials	D_4
2	3.27
3	2.58

Table 3

$$(R) \times (D_4) = UCL_R*$$

$$(\quad) \times (\quad) =$$

* Represents Upper Control Limit of the individual R's. Circle those that are beyond this limit and repeat those readings with the same appraiser and unit as originally used. Recompute R and the UCL_R.

Table 4

Max. X	
Min. X	
X Diff. *	

* Transfer result to "Report" sheet