

**DX6 Math Verification versus Minitab Release 12.2 and 13.1 — DX7 has been verified against the DX6 output for these data sets.**

File Name	Design Type and Features	Minitab	Minitab	Systat	MathCad	Books*
		v13.1	v12.2	v9	v2000	
<b>Factorials</b>						
Battery	General Factorial - 3x3, 4 replicates, 36 runs (tutorial data)	x				DCM
Bottleneck1	7 factors, 8 runs (all categorical)	x				
Bottleneck2	Foldover of Bottleneck1 file, now 16 runs, 2 blocks, use Inverse transform	x				
Bowling	1 factor, 3 levels (tutorial data)	x				
Filtrate	4 factor, 16 runs (tutorial data)	x				DCM
Hard Tip	1 factor, 4 levels, 4 blocks - note Minitab can't block a one-way ANOVA	x				DCM
Laminate	General Factorial - 5x5x2, 50 runs	x				
Lemonall	6 factors, 32 runs (2 categorical)	x				
Resist16	6 factors, 16 runs	x				
Resist32	6 factors, 32 runs (2 categorical)	x				
Soda	General Factorial - 3x3x2, 24 runs	x				DCM
Taguchi-L16	9 factors + 4 interactions, 16 runs (tutorial data)	x				
Turbine	8 factors, 32 runs, 4 blocks	x				DCM
Vdt	3 factors, 3 replicates, 3 blocks, 24 runs	x				
<b>RSM</b>						
Banana3	3 factor CCD, augmented d-optimally to fit cubic model, analyzed cubic model	x				
Extruder	2 factor, 13 runs, d-optimal with multi+B27linear constraints	x				
Glucose	4 factors, 30 runs	x				
Lathe	3 factor Box Behnken, 17 runs	x				
MM263	3 factors, 32 runs with 5 missing data points, natural log transform		x	x		MM
OD	2 numeric, 1 categorical CCD, 26 runs	x				
Rsm	3 factor CCD, 20 runs, 2 blocks, (tutorial data)		x			MM
Signal	2 numeric, 2 categorical, 36 runs	x				
Syngas	4 factors, 28 runs					
<b>Mix</b>						
Clearcoat	Crossed - Minitab can't handle more than 2 levels for process factors					
Cure-time	Crossed - Minitab can't handle more than 2 levels for process factors					
Flare	Mix - 4 factor d-optimal	x				
Gold	Mix - 2 component	x				
Haze	Mix - 8 component, multi-linear constraints, natural log transform	x				Cornell
Ibuprofen	Crossed - Minitab can't handle more than 2 levels for process factors					
Mix	Mix - 3 component, augmented simplex lattice (tutorial data)	x				
Newfish d-opt	Crossed - 3 component / 3 factor d-optimal design	x				
Newfish SCx3FI	Crossed - 3 component / 3 factor user defined design (tutorial data)	x				Cornell
NewFish Test	Crossed - 3 component / 3 factor user defined design - no mix effect, no process effect	x				
Octane	Mix - 7 component screening design (linear models)	x				Cornell
Snee-8	Mix - 8 component screening design (linear models)	x				

<b>Special</b>						
Longley	6 highly correlated factors, used to validate forward, backward and stepwise regression	x				
Paper	Split-plot analysis (tutorial data)	x				DCM
Purity	Nested analysis (tutorial data)	x				DCM
POE Results	Propagation of error for various cases				x	

Total – 38 Files

\*DCM book: Design and Analysis of Experiments by Douglas C. Montgomery, 4th edition, 1997

\*MM book: Response Surface Methodology by Myers and Montgomery, 1995

\*Cornell book: Experiments with Mixtures by John Cornell, 1990

x Verified by: Shari L. Kraber, PE, CQE 3/2/2000