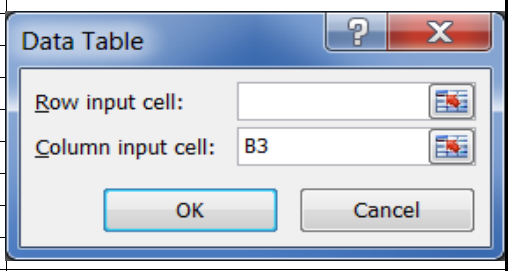
Data Table Setup
shg 2016

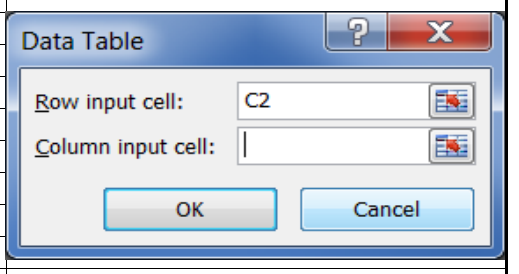
This sheet shows examples of the setup for the three basic types of data tables. The model that generates the results of the row input, column inputs, or row and column inputs can be arbitrarily complex, and the formulas in the table are frequently just references to cells on another sheet.

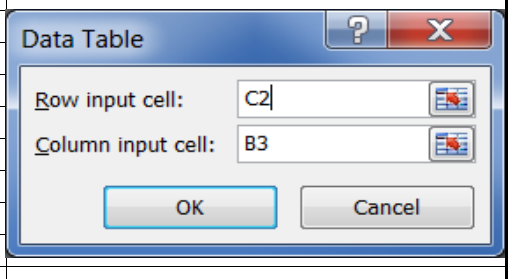
The row and column input cells must be on the same sheet as the data table.

The next two sheets show how to extend data tables to accommodate an arbitrary number of inputs.

	A	B	C	D	E	F	G	H	I	J	K
1											
2			Row Input								
3		Col Input									
4											
5		**Example 1: 1D Data Table with Column Input (Evaluates many formulas for one varying input)**									
6		Unused	Formulas								
7		Column input values									
8			1. Select the entire range bordered by the green outline, then Data >								
9			What-If Analysis > Data Table.								
10											
11			2. Enter the column input cell (**B3**) only and press OK. What appears in								
12			this lower-right section is **{=TABLE(,B3)}**								
13											
14											
15			The formulas at top are evaluated for the column input values at left.								
16											
17											
18		**Example 2: 1D Data Table with Row Input (Evaluates many formulas for one varying input)**									
19		Unused	Row input values								
20		Formulas									
21			1. Select the entire range bordered by the green outline, then Data >								
22			What-If Analysis > Data Table.								
23											
24			2. Enter the row input cell (**C2**) only and press OK. What appears in this								
25			lower-right section is **{=TABLE(C2,)}**								
26											
27											
28			The formulas at left are evaluated for the row input values at top.								
29											
30											
31		**Example 3: 2D Data Table (Row and Column Inputs) (Evaluates one formula for two varying inputs)**									
32		Formula	Row input values								
33		column input values									
34			1. Select the entire range bordered by the green outline, then Data >								
35			What-If Analysis > Data Table.								
36											
37			2. Enter both the row and column input cells and press OK. What appears								
38			in this lower-right section is **{=TABLE(C2,B3)}**								
39											
40			The single formula at upper left is evaluated for the column input values								
41			at left and the row input values above.								
42											







Example 4: N-Way Data Table with Column Input
(Evaluates many formulas for many varying inputs)

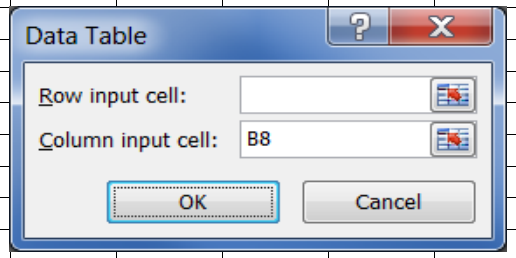
2. Inputs selected by Column Input cell (B8) are referenced on some other sheet

3. Formulas in the top row of the data table reference the results calculated on that other sheet

Selector				
4	37	32	28	31

#	Inp1	Inp2	...	InpN
	7. Hide row 10 & print this			
1	58	91	14	16
2	77	9	90	60
3	69	95	98	65
4	37	32	28	31
5	66		81	75

Selector	Out1	Out2	...	OutM
	=Calcs!Out1	=Calcs!Out2	=Calcs!...	=Calcs!OutM
1	{=TABLE(,B8)}	{=TABLE(,B8)}	{=TABLE(,B8)}	{=TABLE(,B8)}
2	{=TABLE(,B8)}	{=TABLE(,B8)}	{=TABLE(,B8)}	{=TABLE(,B8)}
3	{=TABLE(,B8)}	{=TABLE(,B8)}	{=TABLE(,B8)}	{=TABLE(,B8)}
4	{=TABLE(,B8)}	{=TABLE(,B8)}	{=TABLE(,B8)}	{=TABLE(,B8)}
5	{=TABLE(,B8)}	{=TABLE(,B8)}	{=TABLE(,B8)}	{=TABLE(,B8)}



1. Many sets of many inputs (one set per row)

4. Column input

5. 1D Data Table tabulates the results for all input sets

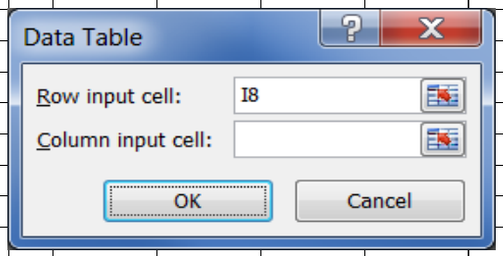
Example 5: N-Way Data Table with Row Input
(Evaluates many formulas for many varying inputs)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1																
2																
3																
4																
5																
6																
7									Selector							
8		#	~~Hide col C~~	1	2	3	4	5	3							
9		Inp1	~~and print this~~	13	14	46	19	81	46							
10		Inp2		11	12	65	47	66	65							
11		...		68	7	56	2	23	56							
12		InpN		98	1	34	57	27	34							
13																
14			Selector	1	2	3	4	5								
15		Out1	=Calcs!Out1	{=TABLE(I8,)}	{=TABLE(I8,)}	{=TABLE(I8,)}	{=TABLE(I8,)}	{=TABLE(I8,)}								
16		Out2	=Calcs!Out2	{=TABLE(I8,)}	{=TABLE(I8,)}	{=TABLE(I8,)}	{=TABLE(I8,)}	{=TABLE(I8,)}								
17		...	=Calcs!...	{=TABLE(I8,)}	{=TABLE(I8,)}	{=TABLE(I8,)}	{=TABLE(I8,)}	{=TABLE(I8,)}								
18		OutM	=Calcs!OutM	{=TABLE(I8,)}	{=TABLE(I8,)}	{=TABLE(I8,)}	{=TABLE(I8,)}	{=TABLE(I8,)}								
19																
20																
21																
22																
23																
24																

1. Many sets of many inputs (one set per column)

2. Inputs selected by Column Input cell (I8) are referenced on some other sheet

3. Formulas in the left column of the data table reference the results calculated on that other sheet

4. Row input

5. 1D Data Table tabulates the results for all input sets