A quick demonstration of three methods of handling similar, but not identical spreadsheets using Microsoft Excel

Anthony J. Castellani

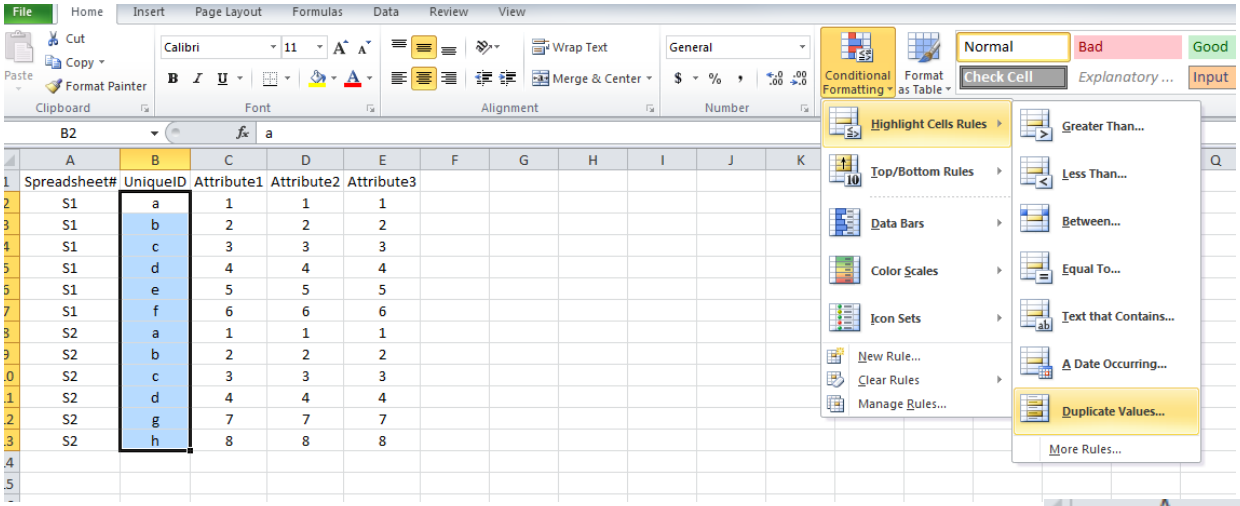
Quick visualization

METHOD 1

Two spreadsheets side-by-side (or on different sheets or even books)

	A	B	C	D	E	F	G	H	I	J	K
1	Spreadsheet#	UniqueID	Attribute1	Attribute2	Attribute3		Spreadsheet#	UniqueID	Attribute1	Attribute2	Attribute3
2	S1	a	1	1	1		S2	a	1	1	1
3	S1	b	2	2	2		S2	b	2	2	2
4	S1	c	3	3	3		S2	c	3	3	3
5	S1	d	4	4	4		S2	d	4	4	4
6	S1	e	5	5	5		S2	g	7	7	7
7	S1	f	6	6	6		S2	h	8	8	8

Copy the two spreadsheets into one block, highlight a column of unique values, and use the “Duplicate Values” tool

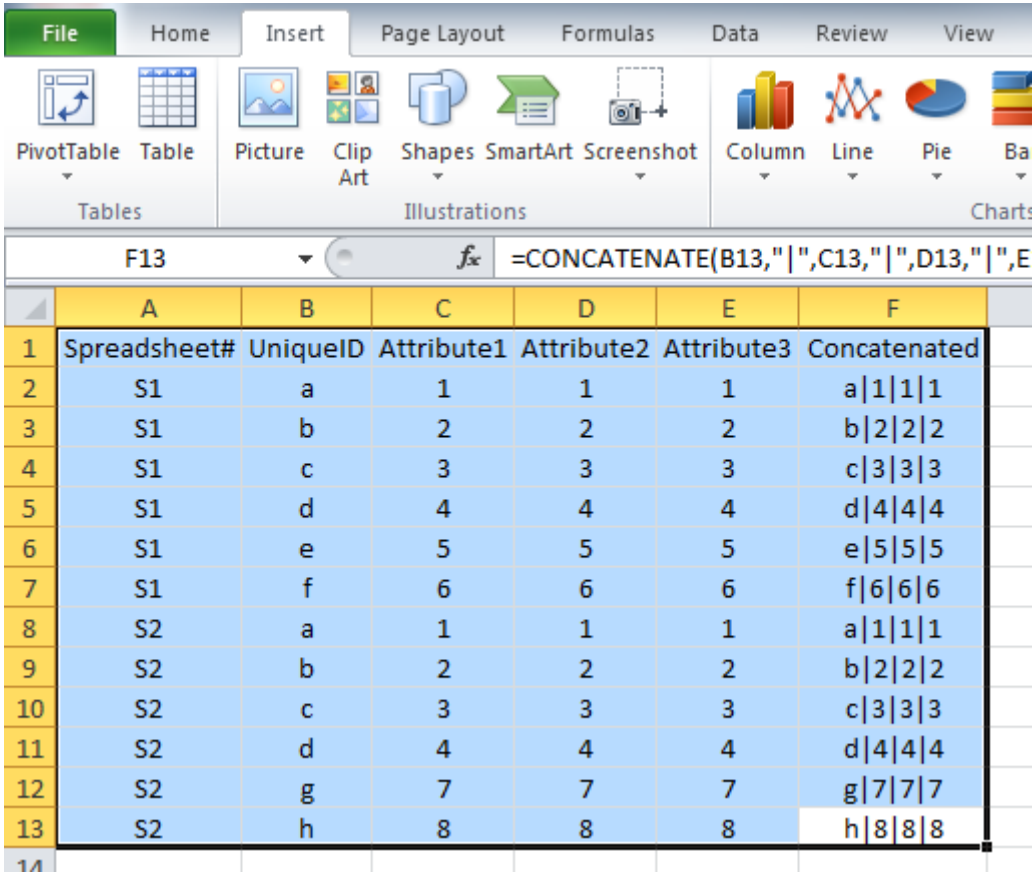


	A	B	C	D	E
1	Spreadsheet#	UniqueID	Attribute1	Attribute2	Attribute3
2	S1	a	1	1	1
3	S1	b	2	2	2
4	S1	c	3	3	3
5	S1	d	4	4	4
6	S1	e	5	5	5
7	S1	f	6	6	6
8	S2	a	1	1	1
9	S2	b	2	2	2
10	S2	c	3	3	3
11	S2	d	4	4	4
12	S2	g	7	7	7
13	S2	h	8	8	8

Pivot Tables

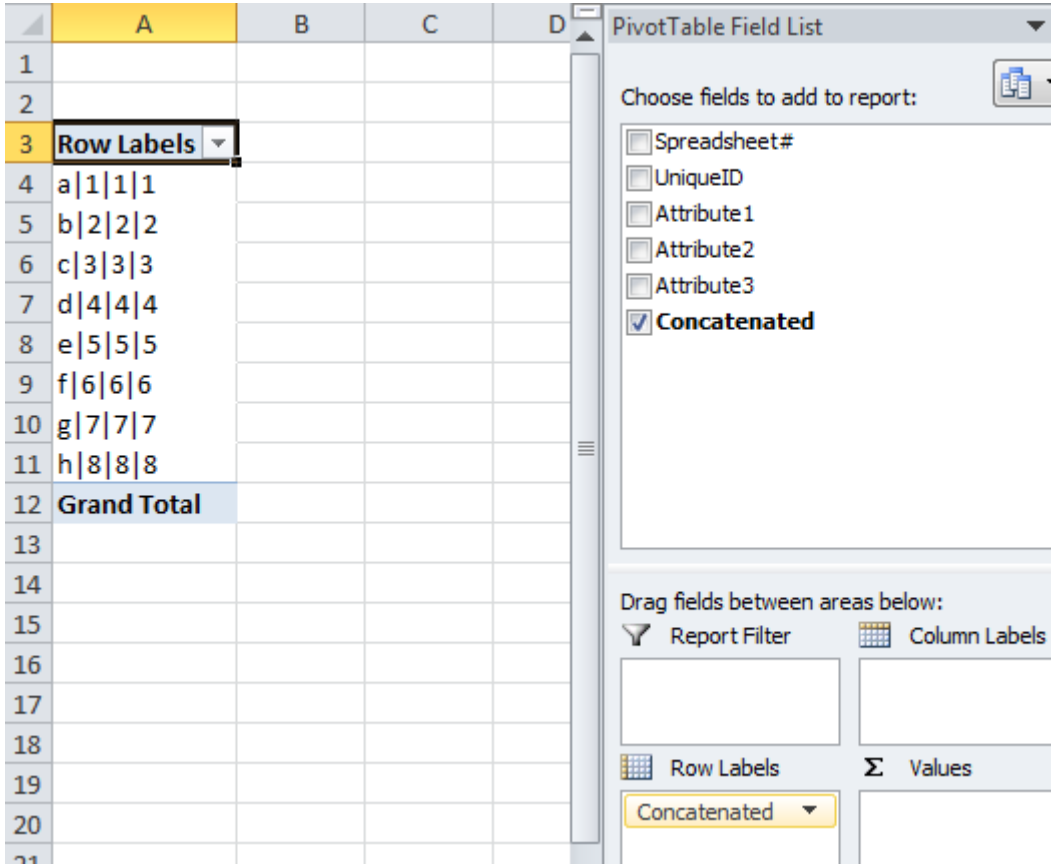
METHOD 2

With the two spreadsheets copied together, add a column containing the rows concatenated together. Use a symbol not otherwise found in the data to separate values. Select the “PivotTable” tool.

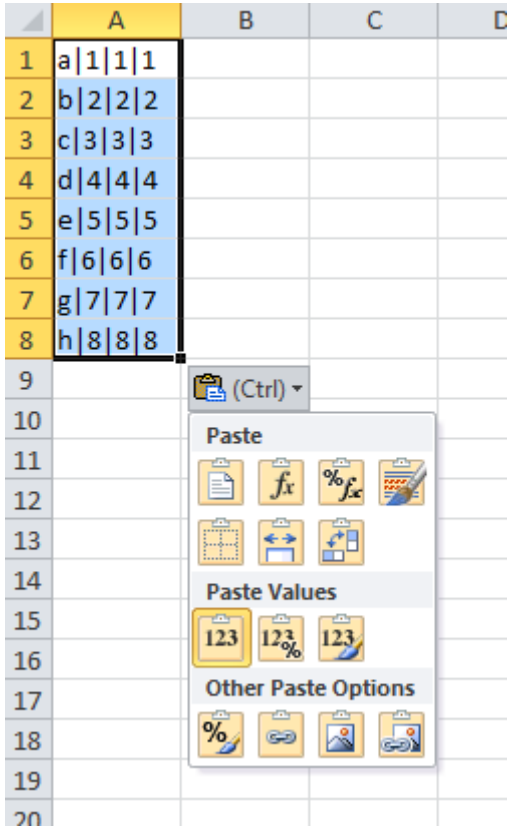


	A	B	C	D	E	F
1	Spreadsheet#	UniqueID	Attribute1	Attribute2	Attribute3	Concatenated
2	S1	a	1	1	1	a|1|1|1
3	S1	b	2	2	2	b|2|2|2
4	S1	c	3	3	3	c|3|3|3
5	S1	d	4	4	4	d|4|4|4
6	S1	e	5	5	5	e|5|5|5
7	S1	f	6	6	6	f|6|6|6
8	S2	a	1	1	1	a|1|1|1
9	S2	b	2	2	2	b|2|2|2
10	S2	c	3	3	3	c|3|3|3
11	S2	d	4	4	4	d|4|4|4
12	S2	g	7	7	7	g|7|7|7
13	S2	h	8	8	8	h|8|8|8
14						

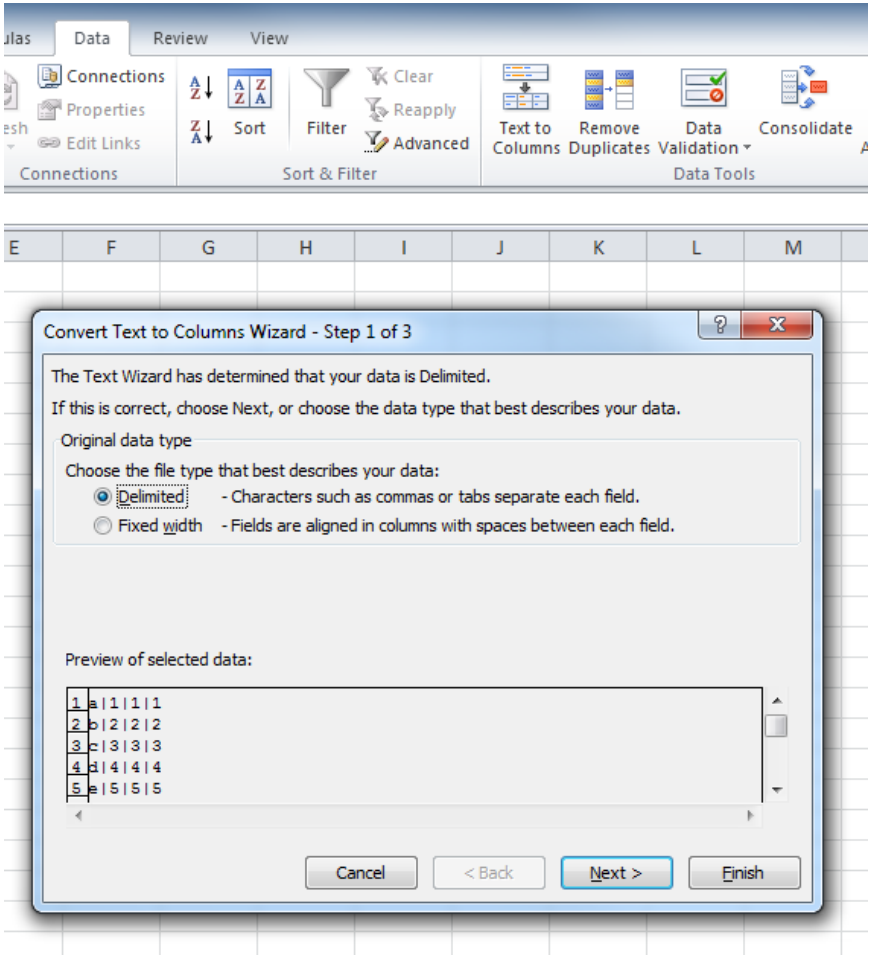
In the pivot table screen, arrange as seen here. Copy the contents of the pivot table.



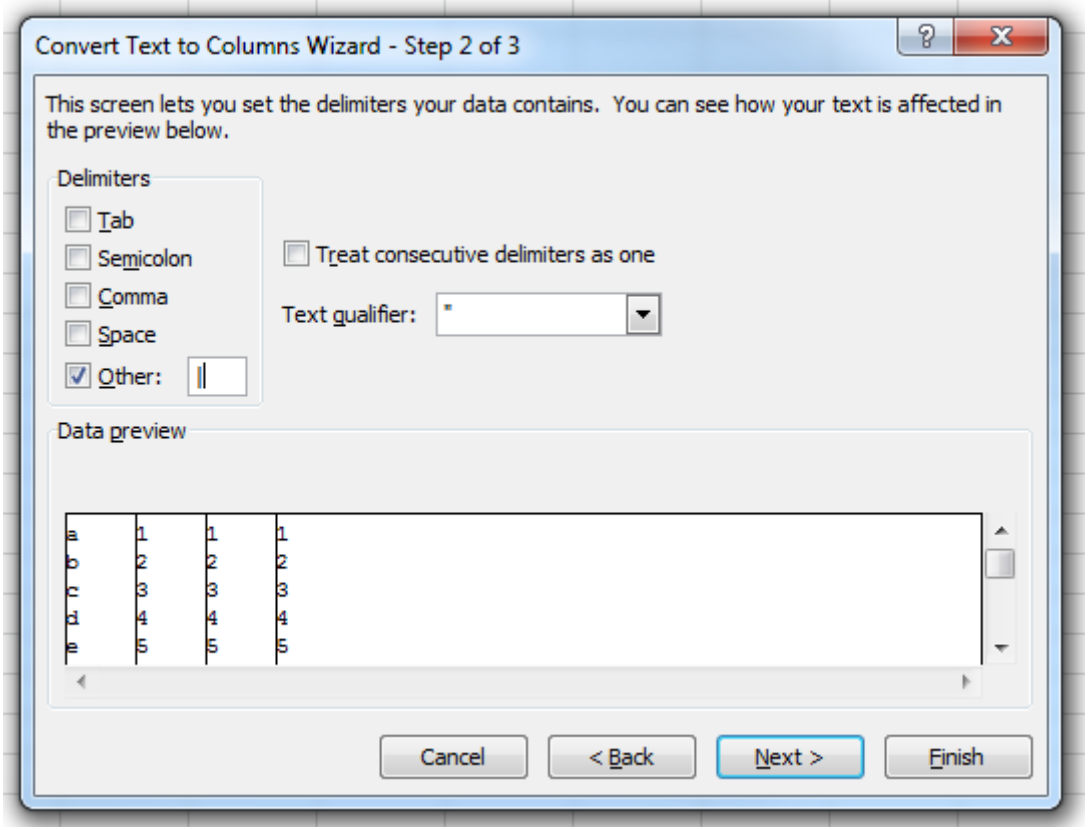
In the location of your choosing, use the “Paste Values” function to paste your pivot table less the formulas.



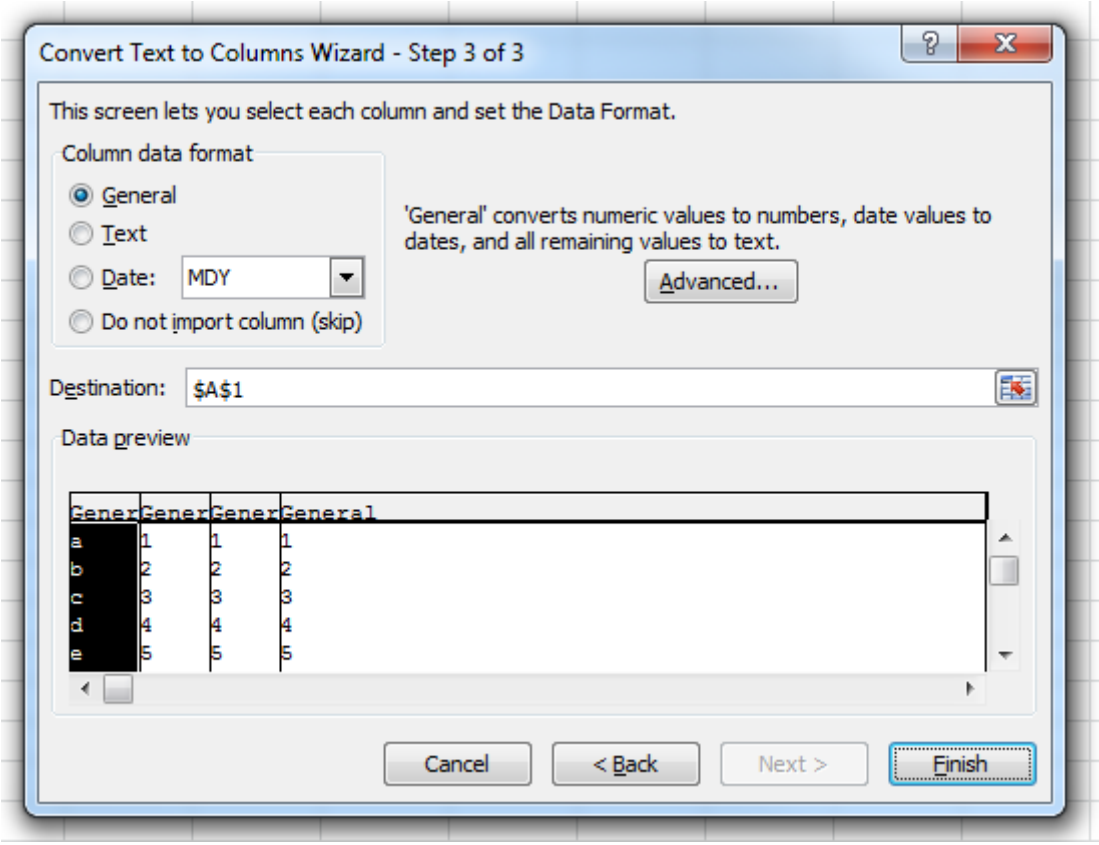
With your data still highlighted, use the “Text to Columns” tool. Follow the wizard steps seen on the next slides.



Wizard continued

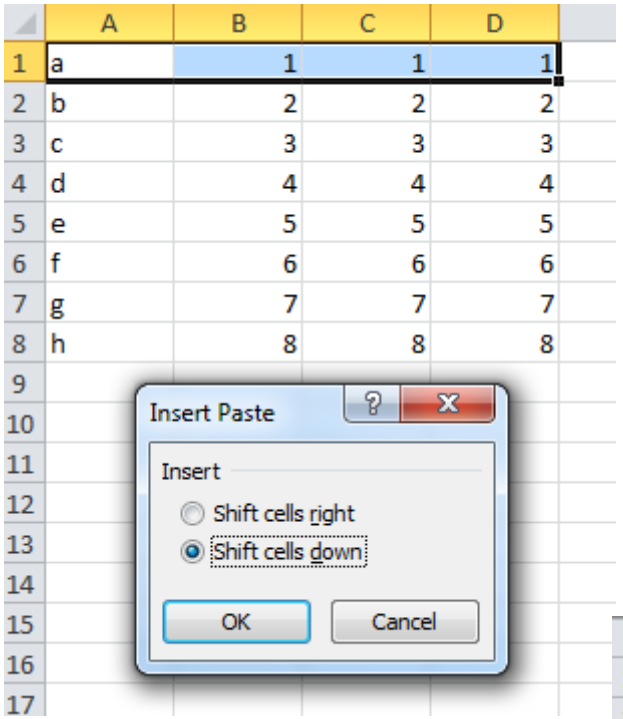


Wizard continued



You can now copy-and-paste your column headers above your new spreadsheet containing only unique values.

	A	B	C	D
1	a	1	1	1
2	b	2	2	2
3	c	3	3	3
4	d	4	4	4
5	e	5	5	5
6	f	6	6	6
7	g	7	7	7
8	h	8	8	8
9				

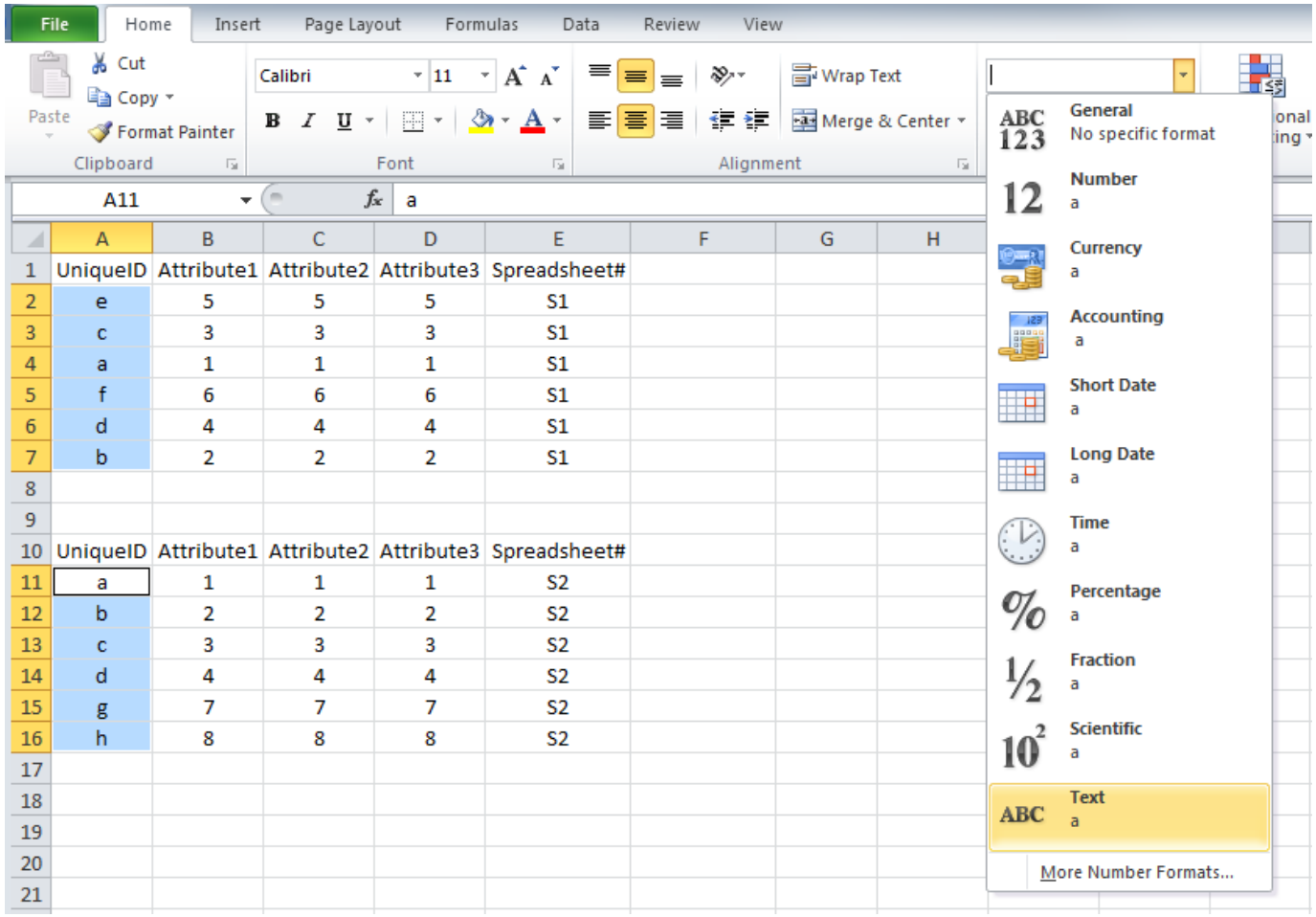


	A	B	C	D
1	UniqueID	Attribute1	Attribute2	Attribute3
2	a	1	1	1
3	b	2	2	2
4	c	3	3	3
5	d	4	4	4
6	e	5	5	5
7	f	6	6	6
8	g	7	7	7
9	h	8	8	8
10				

VLOOKUP

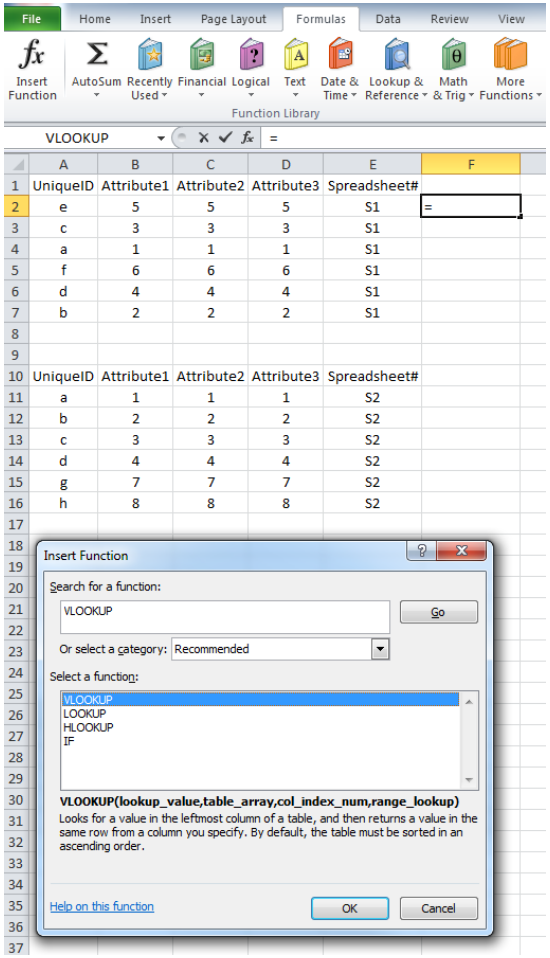
METHOD 3

For my demonstration, my uniqueID field needed to be in Text format.



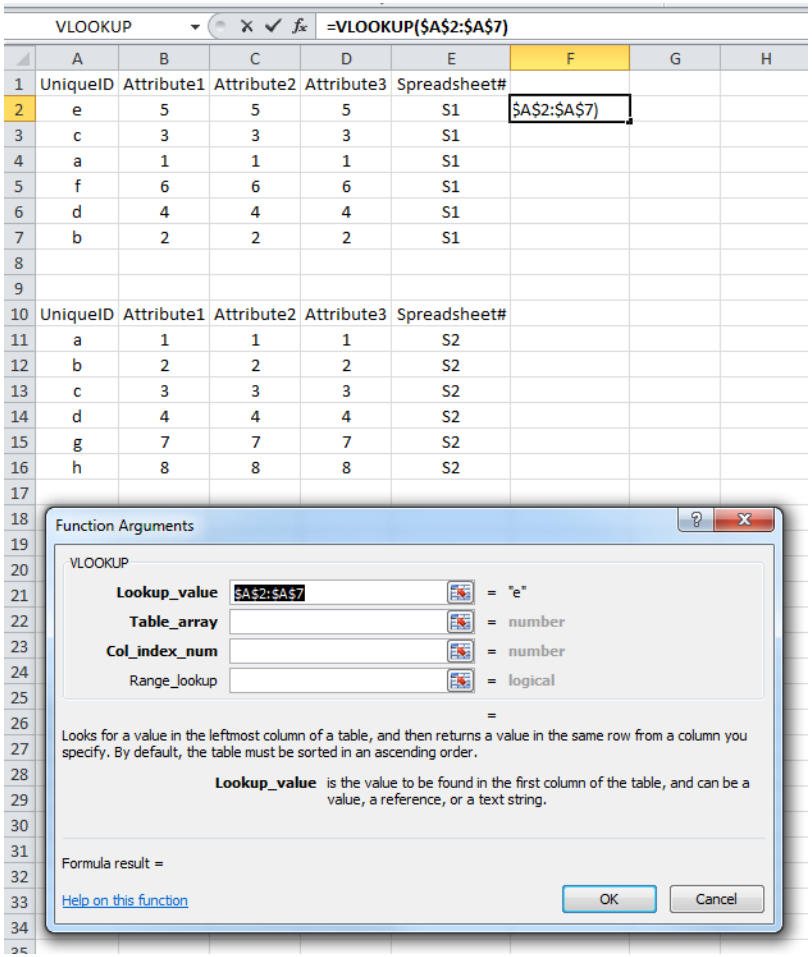
	A	B	C	D	E
1	UniqueID	Attribute1	Attribute2	Attribute3	Spreadsheet#
2	e	5	5	5	S1
3	c	3	3	3	S1
4	a	1	1	1	S1
5	f	6	6	6	S1
6	d	4	4	4	S1
7	b	2	2	2	S1
8					
9					
10	UniqueID	Attribute1	Attribute2	Attribute3	Spreadsheet#
11	a	1	1	1	S2
12	b	2	2	2	S2
13	c	3	3	3	S2
14	d	4	4	4	S2
15	g	7	7	7	S2
16	h	8	8	8	S2
17					
18					
19					
20					
21					

You want two spreadsheets: the one you will add to, and the one you will reference from. The reference spreadsheet needs to be sorted in ascending order. Select an empty cell next to the first row and find the VLOOKUP function to deploy its wizard.



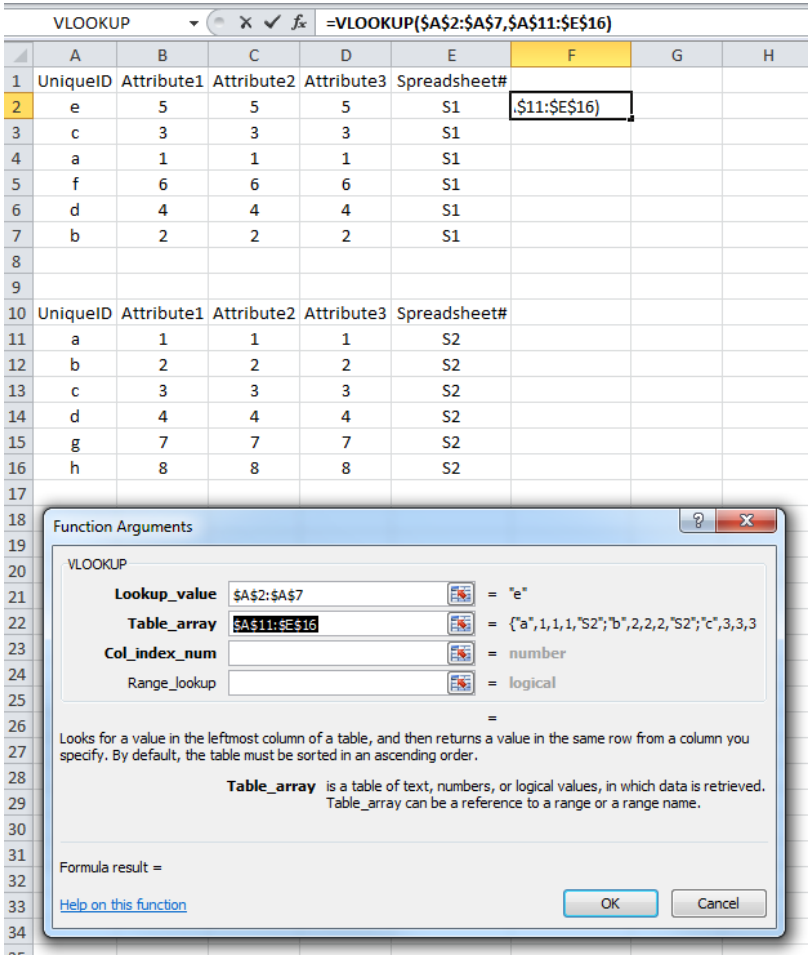
	A	B	C	D	E	F
1	UniqueID	Attribute1	Attribute2	Attribute3	Spreadsheet#	
2	e	5	5	5	S1	=
3	c	3	3	3	S1	
4	a	1	1	1	S1	
5	f	6	6	6	S1	
6	d	4	4	4	S1	
7	b	2	2	2	S1	
8						
9						
10	UniqueID	Attribute1	Attribute2	Attribute3	Spreadsheet#	
11	a	1	1	1	S2	
12	b	2	2	2	S2	
13	c	3	3	3	S2	
14	d	4	4	4	S2	
15	g	7	7	7	S2	
16	h	8	8	8	S2	
17						

Select the first column of the spreadsheet that will be added to. Note the use of “$”.



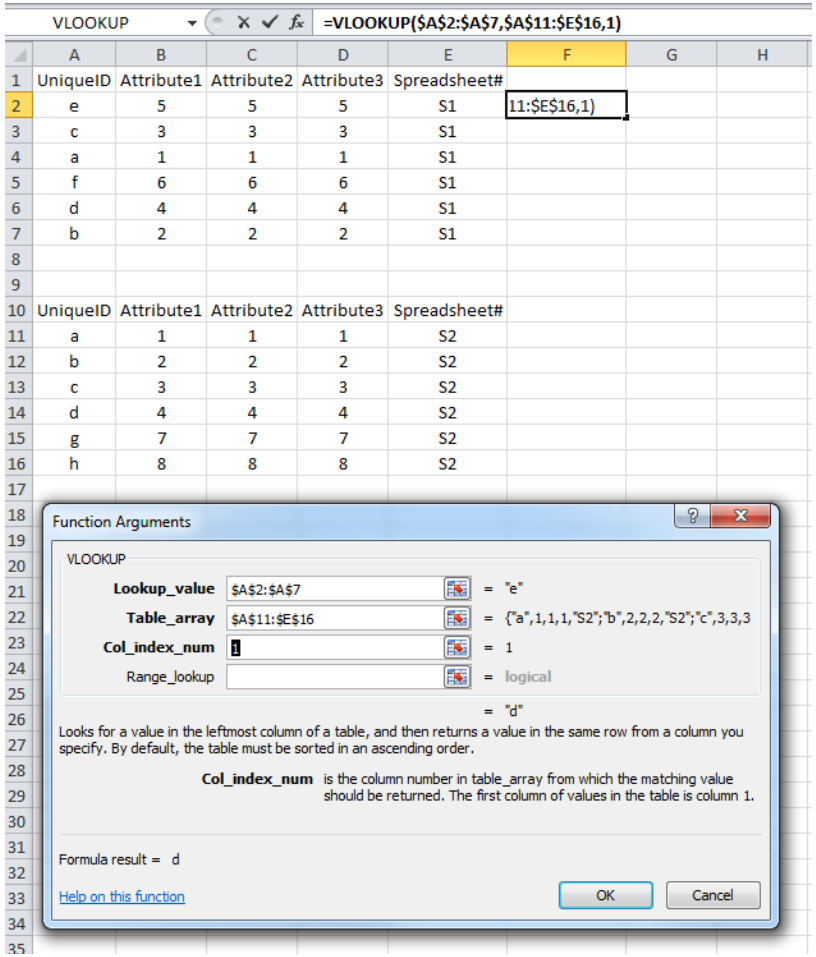
	A	B	C	D	E
1	UniqueID	Attribute1	Attribute2	Attribute3	Spreadsheet#
2	e	5	5	5	S1
3	c	3	3	3	S1
4	a	1	1	1	S1
5	f	6	6	6	S1
6	d	4	4	4	S1
7	b	2	2	2	S1
8					
9					
10	UniqueID	Attribute1	Attribute2	Attribute3	Spreadsheet#
11	a	1	1	1	S2
12	b	2	2	2	S2
13	c	3	3	3	S2
14	d	4	4	4	S2
15	g	7	7	7	S2
16	h	8	8	8	S2
17					

Select all of the data in the reference spreadsheet. Note the use of “$”.



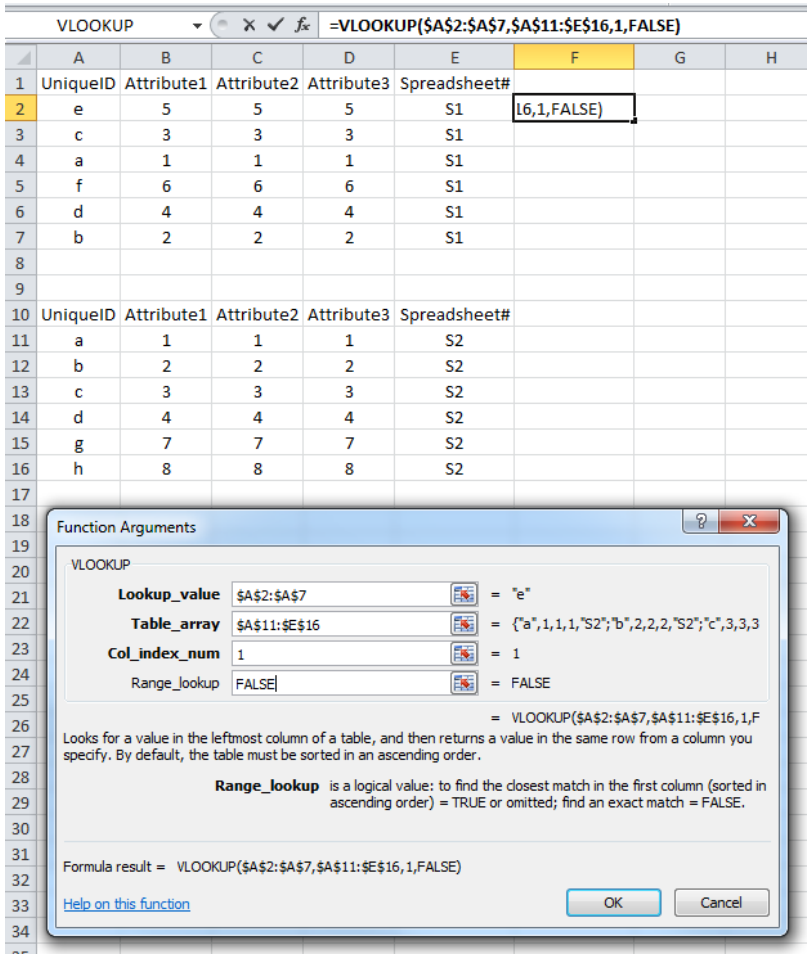
	A	B	C	D	E	F	G	H
1	UniqueID	Attribute1	Attribute2	Attribute3	Spreadsheet#			
2	e	5	5	5	S1	,$11:$E$16)		
3	c	3	3	3	S1			
4	a	1	1	1	S1			
5	f	6	6	6	S1			
6	d	4	4	4	S1			
7	b	2	2	2	S1			
8								
9								
10	UniqueID	Attribute1	Attribute2	Attribute3	Spreadsheet#			
11	a	1	1	1	S2			
12	b	2	2	2	S2			
13	c	3	3	3	S2			
14	d	4	4	4	S2			
15	g	7	7	7	S2			
16	h	8	8	8	S2			
17								

Input a 1 for now.



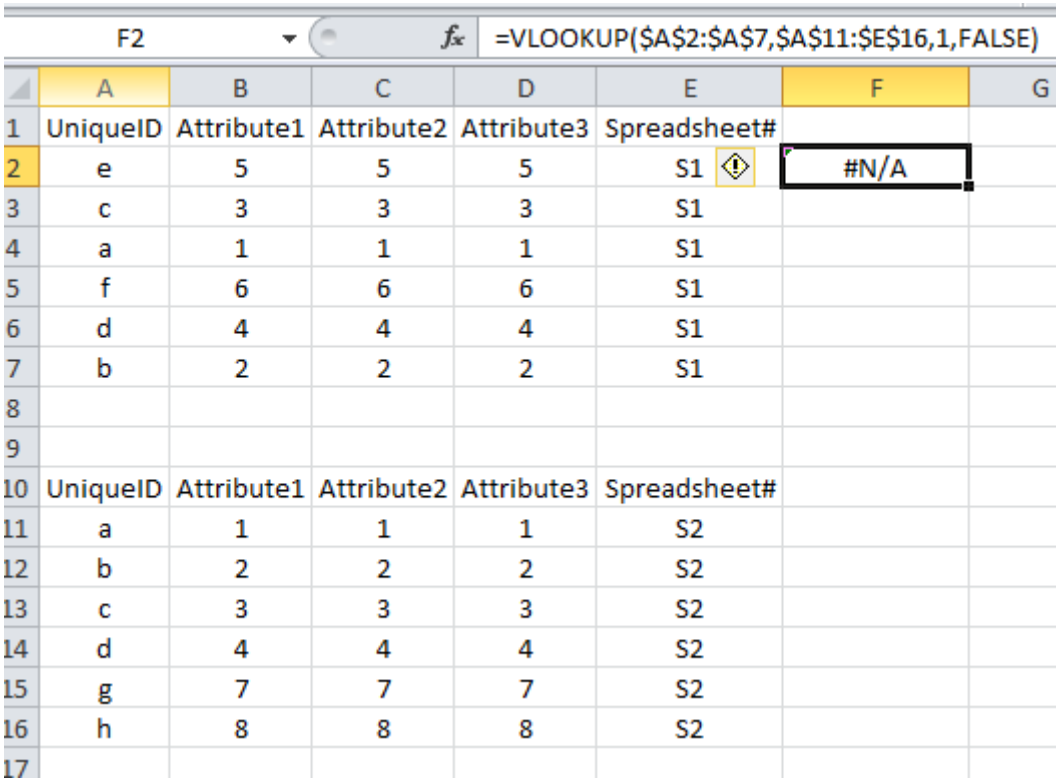
	A	B	C	D	E	F	G	H
1	UniqueID	Attribute1	Attribute2	Attribute3	Spreadsheet#			
2	e	5	5	5	S1	11:$E$16,1)		
3	c	3	3	3	S1			
4	a	1	1	1	S1			
5	f	6	6	6	S1			
6	d	4	4	4	S1			
7	b	2	2	2	S1			
8								
9								
10	UniqueID	Attribute1	Attribute2	Attribute3	Spreadsheet#			
11	a	1	1	1	S2			
12	b	2	2	2	S2			
13	c	3	3	3	S2			
14	d	4	4	4	S2			
15	g	7	7	7	S2			
16	h	8	8	8	S2			
17								

“FALSE” is a common choice here.



	A	B	C	D	E	F	G	H
1	UniqueID	Attribute1	Attribute2	Attribute3	Spreadsheet#			
2	e	5	5	5	S1	L6,1,FALSE)		
3	c	3	3	3	S1			
4	a	1	1	1	S1			
5	f	6	6	6	S1			
6	d	4	4	4	S1			
7	b	2	2	2	S1			
8								
9								
10	UniqueID	Attribute1	Attribute2	Attribute3	Spreadsheet#			
11	a	1	1	1	S2			
12	b	2	2	2	S2			
13	c	3	3	3	S2			
14	d	4	4	4	S2			
15	g	7	7	7	S2			
16	h	8	8	8	S2			
17								

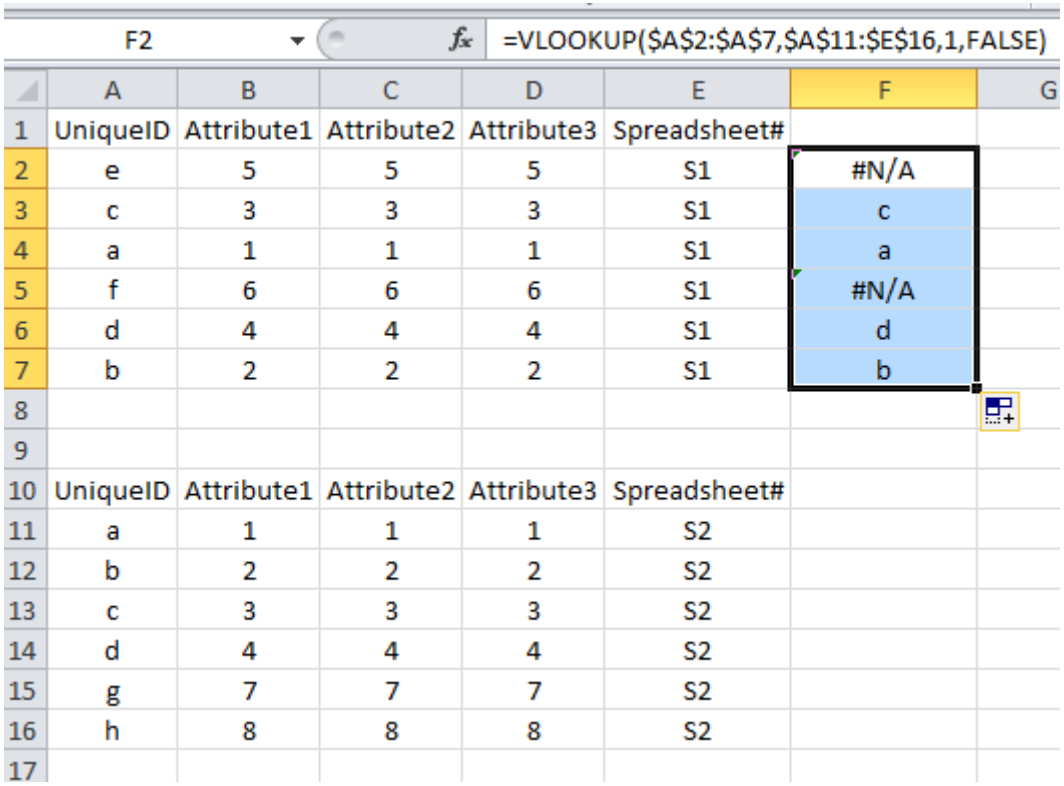
Your first result. Do not fear “#N/A”, as in this case the first row is unique, having no match in the reference spreadsheet.



F2 =VLOOKUP($A$2:$A$7,$A$11:$E$16,1,FALSE)

	A	B	C	D	E	F	G
1	UniqueID	Attribute1	Attribute2	Attribute3	Spreadsheet#		
2	e	5	5	5	S1	#N/A	
3	c	3	3	3	S1		
4	a	1	1	1	S1		
5	f	6	6	6	S1		
6	d	4	4	4	S1		
7	b	2	2	2	S1		
8							
9							
10	UniqueID	Attribute1	Attribute2	Attribute3	Spreadsheet#		
11	a	1	1	1	S2		
12	b	2	2	2	S2		
13	c	3	3	3	S2		
14	d	4	4	4	S2		
15	g	7	7	7	S2		
16	h	8	8	8	S2		
17							

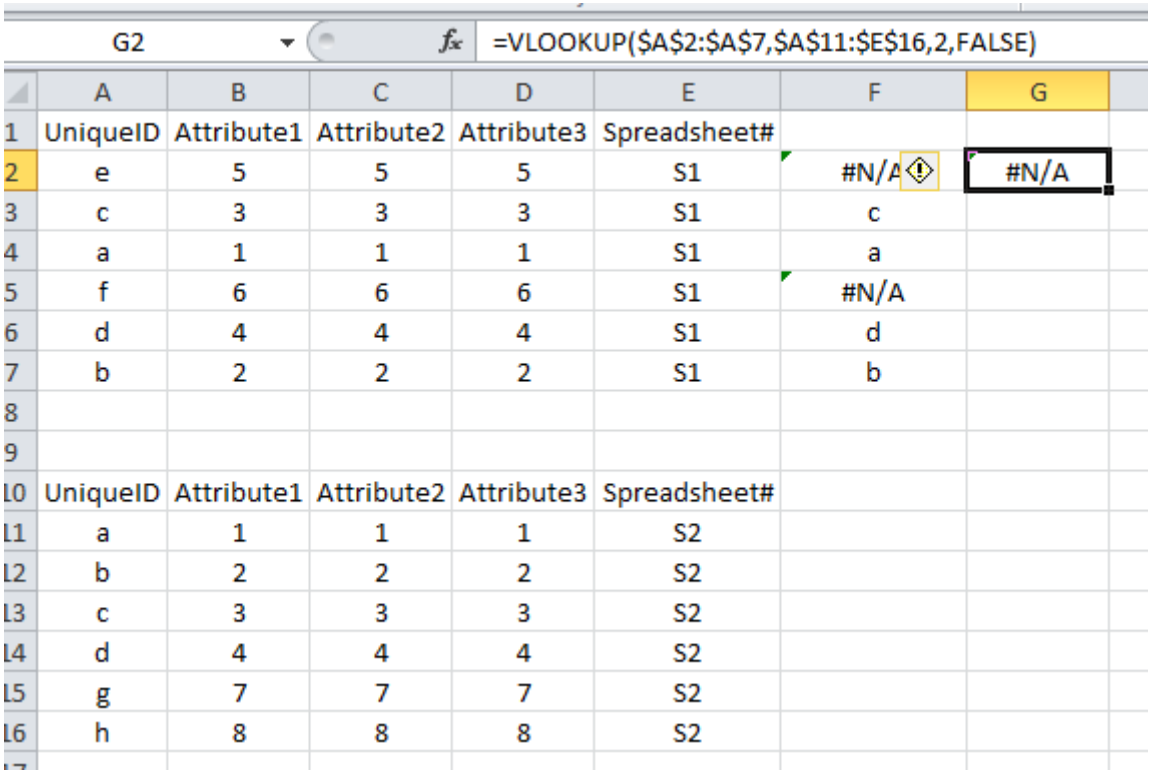
Because of the use of “$”, you can now just drag down the first formula to the rest of the cells in the first column.



F2 | =VLOOKUP($A$2:$A$7,$A$11:$E$16,1,FALSE)

	A	B	C	D	E	F	G
1	UniqueID	Attribute1	Attribute2	Attribute3	Spreadsheet#		
2	e	5	5	5	S1	#N/A	
3	c	3	3	3	S1	c	
4	a	1	1	1	S1	a	
5	f	6	6	6	S1	#N/A	
6	d	4	4	4	S1	d	
7	b	2	2	2	S1	b	
8							
9							
10	UniqueID	Attribute1	Attribute2	Attribute3	Spreadsheet#		
11	a	1	1	1	S2		
12	b	2	2	2	S2		
13	c	3	3	3	S2		
14	d	4	4	4	S2		
15	g	7	7	7	S2		
16	h	8	8	8	S2		
17							

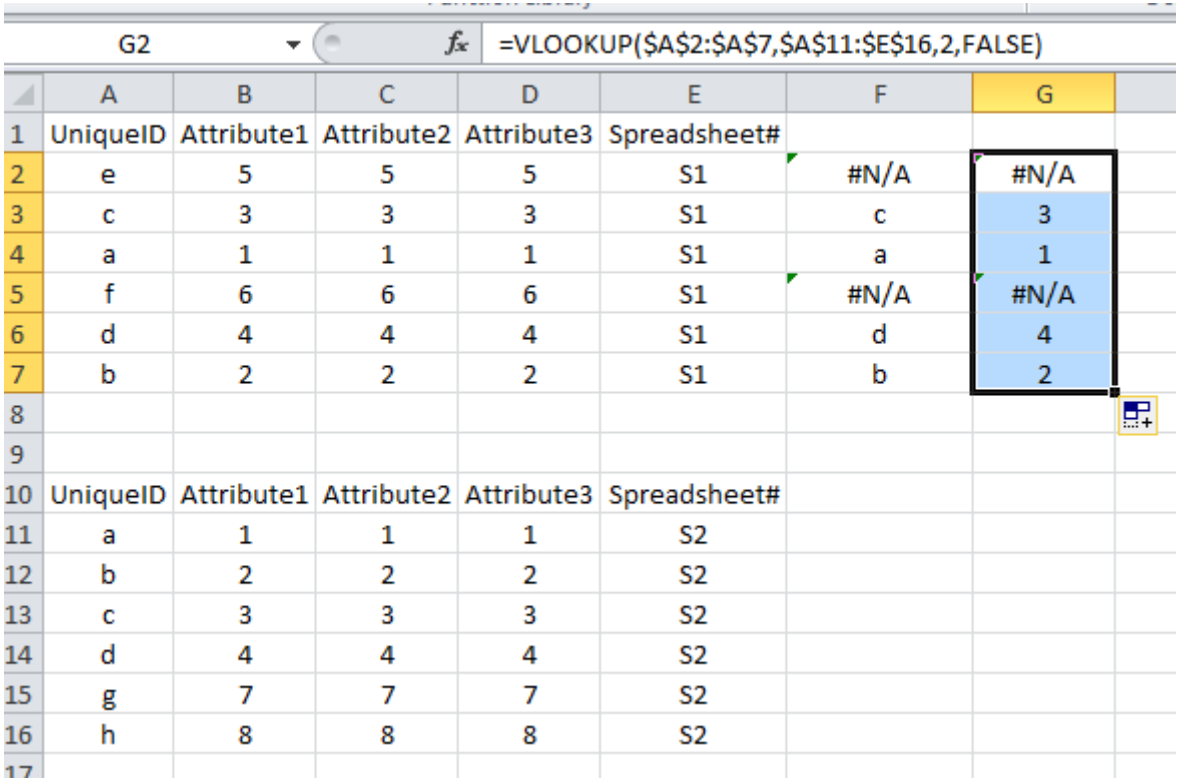
To now move to the second column, copy over the formula, and change the “1” to “2”.



G2 =VLOOKUP($A$2:$A$7,$A$11:$E$16,2,FALSE)

	A	B	C	D	E	F	G
1	UniqueID	Attribute1	Attribute2	Attribute3	Spreadsheet#		
2	e	5	5	5	S1	#N/A	#N/A
3	c	3	3	3	S1	c	
4	a	1	1	1	S1	a	
5	f	6	6	6	S1	#N/A	
6	d	4	4	4	S1	d	
7	b	2	2	2	S1	b	
8							
9							
10	UniqueID	Attribute1	Attribute2	Attribute3	Spreadsheet#		
11	a	1	1	1	S2		
12	b	2	2	2	S2		
13	c	3	3	3	S2		
14	d	4	4	4	S2		
15	g	7	7	7	S2		
16	h	8	8	8	S2		

You can now drag the formula down the rest of column 2.



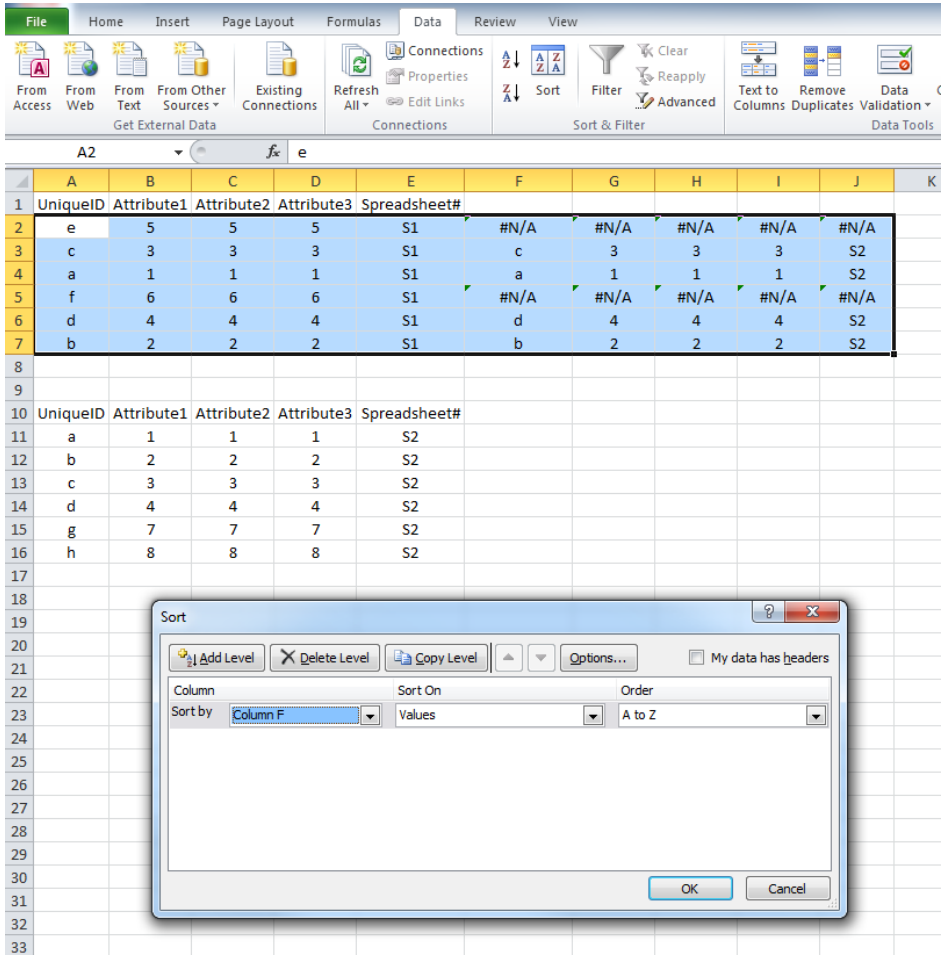
G2 | =VLOOKUP($A$2:$A$7,$A$11:$E$16,2,FALSE)

	A	B	C	D	E	F	G
1	UniqueID	Attribute1	Attribute2	Attribute3	Spreadsheet#		
2	e	5	5	5	S1	#N/A	#N/A
3	c	3	3	3	S1	c	3
4	a	1	1	1	S1	a	1
5	f	6	6	6	S1	#N/A	#N/A
6	d	4	4	4	S1	d	4
7	b	2	2	2	S1	b	2
8							
9							
10	UniqueID	Attribute1	Attribute2	Attribute3	Spreadsheet#		
11	a	1	1	1	S2		
12	b	2	2	2	S2		
13	c	3	3	3	S2		
14	d	4	4	4	S2		
15	g	7	7	7	S2		
16	h	8	8	8	S2		

Repeat this procedure for the remainder of the spreadsheet. It is now clear what rows are shared, and what rows are unique.

	A	B	C	D	E	F	G	H	I	J	K
1	UniqueID	Attribute1	Attribute2	Attribute3	Spreadsheet#						
2	e	5	5	5	S1	#N/A	#N/A	#N/A	#N/A	#N/A	
3	c	3	3	3	S1	c	3	3	3	S2	
4	a	1	1	1	S1	a	1	1	1	S2	
5	f	6	6	6	S1	#N/A	#N/A	#N/A	#N/A	#N/A	
6	d	4	4	4	S1	d	4	4	4	S2	
7	b	2	2	2	S1	b	2	2	2	S2	
8											
9											
10	UniqueID	Attribute1	Attribute2	Attribute3	Spreadsheet#						
11	a	1	1	1	S2						
12	b	2	2	2	S2						
13	c	3	3	3	S2						
14	d	4	4	4	S2						
15	g	7	7	7	S2						
16	h	8	8	8	S2						
17											

A quick sorting action makes this even clearer…



	A	B	C	D	E	F	G	H	I	J
1	UniqueID	Attribute1	Attribute2	Attribute3	Spreadsheet#					
2	e	5	5	5	S1	#N/A	#N/A	#N/A	#N/A	#N/A
3	c	3	3	3	S1	c	3	3	3	S2
4	a	1	1	1	S1	a	1	1	1	S2
5	f	6	6	6	S1	#N/A	#N/A	#N/A	#N/A	#N/A
6	d	4	4	4	S1	d	4	4	4	S2
7	b	2	2	2	S1	b	2	2	2	S2
8										
9										
10	UniqueID	Attribute1	Attribute2	Attribute3	Spreadsheet#					
11	a	1	1	1	S2					
12	b	2	2	2	S2					
13	c	3	3	3	S2					
14	d	4	4	4	S2					
15	g	7	7	7	S2					
16	h	8	8	8	S2					

… crystal clear.

	A	B	C	D	E	F	G	H	I	J
1	UniqueID	Attribute1	Attribute2	Attribute3	Spreadsheet#					
2	a	1	1	1	S1	a	1	1	1	S2
3	b	2	2	2	S1	b	2	2	2	S2
4	c	3	3	3	S1	c	3	3	3	S2
5	d	4	4	4	S1	d	4	4	4	S2
6	e	5	5	5	S1	#N/A	#N/A	#N/A	#N/A	#N/A
7	f	6	6	6	S1	#N/A	#N/A	#N/A	#N/A	#N/A
8										
9										
10	UniqueID	Attribute1	Attribute2	Attribute3	Spreadsheet#					
11	a	1	1	1	S2					
12	b	2	2	2	S2					
13	c	3	3	3	S2					
14	d	4	4	4	S2					
15	g	7	7	7	S2					
16	h	8	8	8	S2					
17										