

How To:

Use the EXPAND function to insert blank rows in dynamic arrays in Excel

Creating summaries with dynamic arrays is easy. Here's a random example...

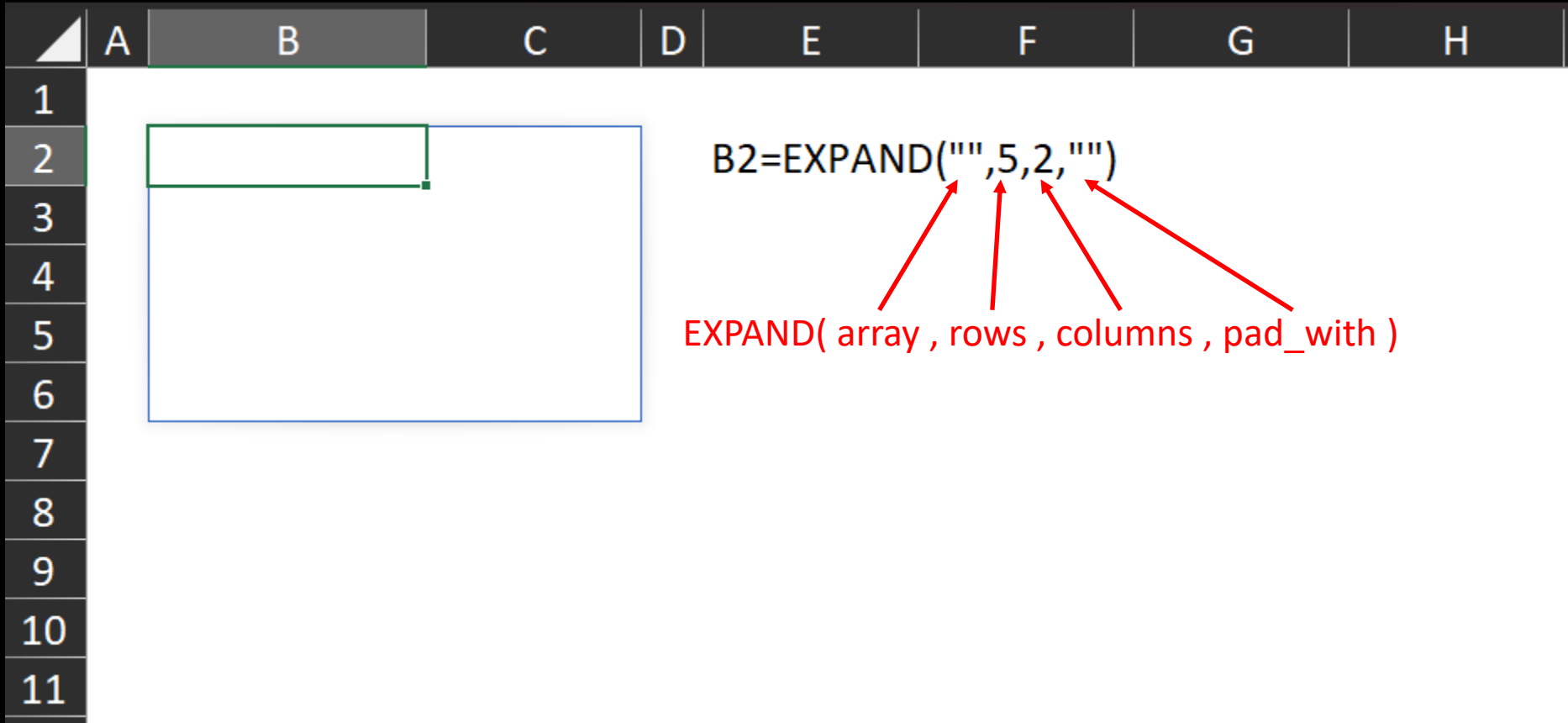
	A	B	C	D	E	F	G	H
1								
2		Product	Sales		B2=LET(
3		Product 1	2128		header,{"Product","Sales"},			
4		Product 2	3395		sales,RANDARRAY(5,1,1000,5000,TRUE),			
5		Product 3	1211		products,"Product "&SEQUENCE(5),			
6		Product 4	3454		detail,HSTACK(products,sales),			
7		Product 5	3351		totals,HSTACK("Total (sum)",SUM(sales)),			
8		Total (sum)	13539		VSTACK(header,detail,totals)			
9)			
10								
11								

You might want to add some blank rows to make the report a little more attractive...

	A	B	C	D	E	F	G	H
1								
2		Product	Sales					
3		Product 1	2128					
4		Product 2	3395					
5		Product 3	1211					
6		Product 4	3454					
7		Product 5	3351					
8		Total (sum)	13539					
9								
10								
11								

Insert blank rows between header and data and between data and total

We can create blank arrays using EXPAND



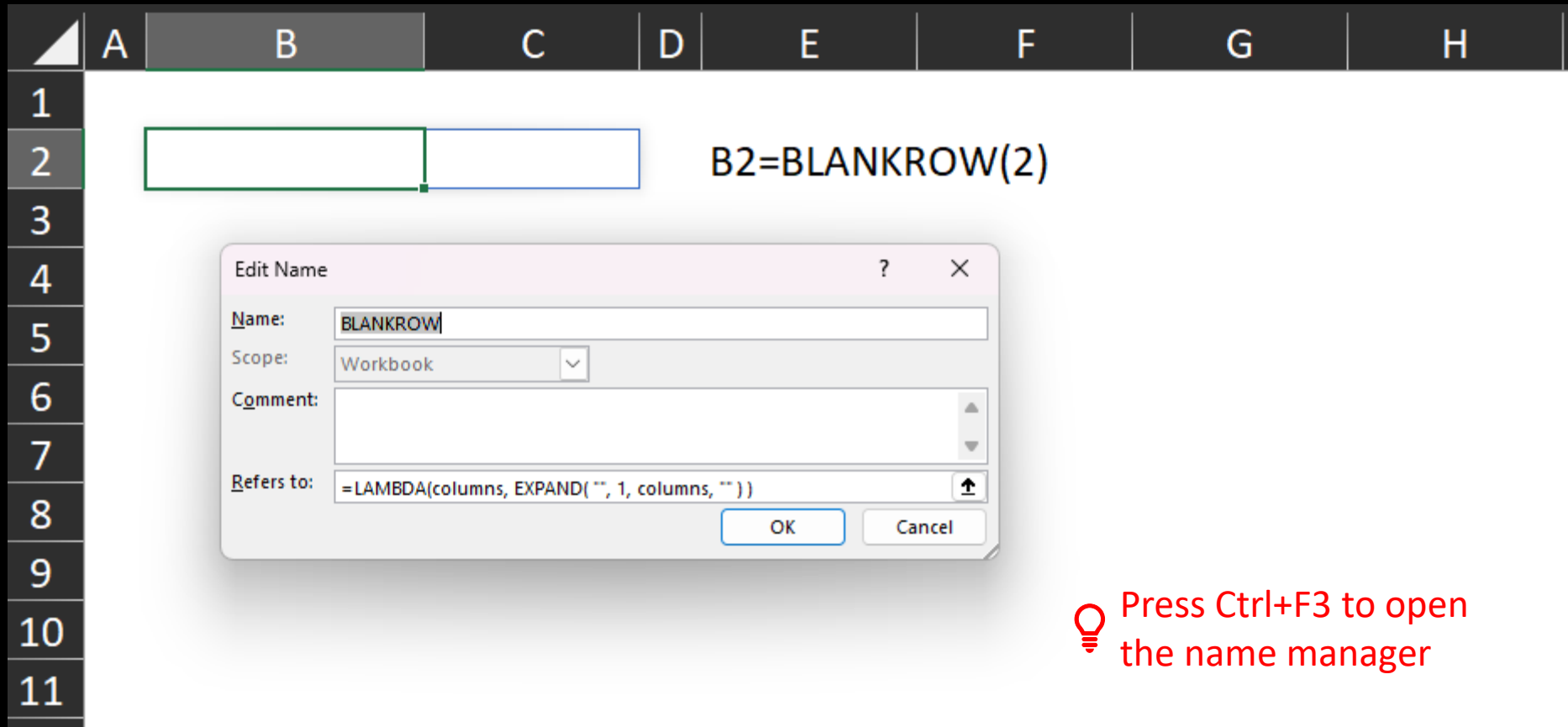
The image shows an Excel spreadsheet with columns A through H and rows 1 through 11. In cell B2, a formula is entered: `B2=EXPAND("",5,2,"")`. This formula creates a 5x2 array of blank cells, which is highlighted by a blue border. To the right of the array, the formula is repeated: `B2=EXPAND("",5,2,"")`. Red arrows point from the parameters of this formula to the corresponding parameters in the formula in cell B2. Below the formula, the function signature is written in red: `EXPAND(array , rows , columns , pad_with)`.

	A	B	C	D	E	F	G	H
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								

`B2=EXPAND("",5,2,"")`

`EXPAND(array , rows , columns , pad_with)`

And use EXPAND to create a simple LAMBDA function called BLANKROW



The screenshot shows an Excel spreadsheet with columns A through H and rows 1 through 11. In cell B2, the formula `B2=BLANKROW(2)` is entered. Below the spreadsheet, the 'Edit Name' dialog box is open. The dialog box has the following fields:

- Name:** BLANKROW
- Scope:** Workbook
- Comment:** (empty text box)
- Refers to:** `=LAMBDA(columns, EXPAND("", 1, columns, ""))`

At the bottom of the dialog box are 'OK' and 'Cancel' buttons.

💡 Press Ctrl+F3 to open the name manager

And use it to insert blank rows into our summary table

	A	B	C	D	E	F	G	H
1								
2		Product	Sales		B2=LET(
3					header,{"Product","Sales"},			
4		Product 1	4245		sales,RANDARRAY(5,1,1000,5000,TRUE),			
5		Product 2	3900		products,"Product "&SEQUENCE(5),			
6		Product 3	1831		detail,HSTACK(products,sales),			
7		Product 4	2185		totals,HSTACK("Total (sum)",SUM(sales)),			
8		Product 5	2062		blank,BLANKROW(2), ← define			
9					VSTACK(header,blank,detail,blank,totals)			
10		Total (sum)	14223)		↑ use	↑ use	
11								