Using MS Excel in Finding the Inverse Matrix

Example: If $A = \begin{bmatrix} -2 & 1 & 3 \\ -4 & 0 & 5 \\ 3 & 5 & 2 \end{bmatrix}$; Find the inverse or A^{-1}

a) Enter the matrices *A* into the Excel sheet as:

	A	B	C	D
1		Matrix *A*		
2		-2	1	3
3		-4	0	5
4		3	5	2

Notice that Matrix *A* is in cells **B2:D4**

b) We find the inverse of matrix *A* by **Highlighting** the cells where you want to place the resulting matrix A^{-1}

	A	B	C	D	E	F	G	H
1		Matrix *A*				Inverse Matrix A^{-1}		
2		-2	1	3				
3		-4	0	5				
4		3	5	2				

c) Once you have highlighted the resulting matrix, and while it is still highlighted, enter the following formula:

= MINVERSE(B2:D4)

d) When the formula is entered, press the **Ctrl** key and the **Shift** key simultaneously, then press the **Enter** key. This will change the formula you just wrote to:

{= MINVERSE(B2:D4)}

If you don't press these keys simultaneously (holding down Shift and Ctrl then press Return), the result will appear only in one cell or, you will get some error message).

e) The resulting matrix will be:

F2 = {=MINVERSE(B2:D4)}

	A	B	C	D	E	F	G	H
1		Matrix *A*				Inverse Matrix A^{-1}		
2		-2	1	3		-1.923	1	0.385
3		-4	0	5		1.769	-1	-0.15
4		3	5	2		-1.54	1	0.308