Data Arrays. Leave the third array undefined

dataA :=

	0	1	2	3	4	5	6	7	8	9
0	0.29	-0.56	1.34	0.47	-0.8	0.02	0.59	-0.31	2.26	-1.36
1	0.41	-0.68	1.17	0.5	-0.92	-0.11	0.75	-0.2	1.99	-1.25
2	0.64	-0.58	1.27	0.64	-0.84	-0.21	0.66	-0.17	2.01	-1.31

dataB :=

	0	1	2	3	4	5	6	7	8	9
0	0.08	-0.47	1.19	0.01	-0.56	-0.2	0.47	-0.63	1.8	-1.68
1	0.25	-1.22	0.94	1.03	-1.2	0.22	0.55	0.08	2.12	-1.62
2	0.07	-0.68	1.34	0.2	-1.28	0.06	0.83	-0.34	2.19	-1.5

dataC :=

	0	1	2	3	4	5	6	7	8	9
0	0.04	-1.38	0.88	0.14	-1.46	-0.29	0.02	-0.46	1.77	-1.49
1	-0.11	-1.13	1.09	0.2	-1.07	-0.67	0.01	-0.56	1.45	-1.77
2	-0.15	-0.96	0.67	0.11	-1.45	-0.49	0.21	-0.49	1.87	-2.16

n_r :=

Two
Three

Choose Number of data arrays

This will not work, because of the undefined variable

$$P := \begin{cases} \text{stack}(\text{dataA}, \text{dataB}) & \text{if } n_r = 2 \\ \text{stack}(\text{dataA}, \text{dataB}, \text{dataC}) & \text{otherwise} \end{cases}$$

We can create a function based on a scripted component (because we are then relying the VBscript error trapping, not the Mathcad error trapping) to test if a variable is undefined, and create a new variable based on the old variable.

ReDefine(VarName) :=

VarName

Now redefine all our data. Do NOT use the same variable name as the original data!:

DataA := ReDefine("dataA")

DataB := ReDefine("dataB")

DataC := ReDefine("dataC")

DataA =

	0	1	2	3	4	5	6	7	8	9
0	0.29	-0.56	1.34	0.47	-0.8	0.02	0.59	-0.31	2.26	-1.36
1	0.41	-0.68	1.17	0.5	-0.92	-0.11	0.75	-0.2	1.99	-1.25
2	0.64	-0.58	1.27	0.64	-0.84	-0.21	0.66	-0.17	2.01	-1.31

DataB =

	0	1	2	3	4	5	6	7	8	9
0	0.08	-0.47	1.19	0.01	-0.56	-0.2	0.47	-0.63	1.8	-1.68
1	0.25	-1.22	0.94	1.03	-1.2	0.22	0.55	0.08	2.12	-1.62
2	0.07	-0.68	1.34	0.2	-1.28	0.06	0.83	-0.34	2.19	-1.5

DataC = "UNDEFINED"

This now works:

$$P := \begin{cases} \text{stack}(DataA, DataB) & \text{if } n_r = 2 \\ \text{stack}(DataA, DataB, DataC) & \text{otherwise} \end{cases}$$

P =

	0	1	2	3	4	5	6	7	8	9
0	0.29	-0.56	1.34	0.47	-0.8	0.02	0.59	-0.31	2.26	-1.36
1	0.41	-0.68	1.17	0.5	-0.92	-0.11	0.75	-0.2	1.99	-1.25
2	0.64	-0.58	1.27	0.64	-0.84	-0.21	0.66	-0.17	2.01	-1.31
3	0.08	-0.47	1.19	0.01	-0.56	-0.2	0.47	-0.63	1.8	-1.68
4	0.25	-1.22	0.94	1.03	-1.2	0.22	0.55	0.08	2.12	-1.62
5	0.07	-0.68	1.34	0.2	-1.28	0.06	0.83	-0.34	2.19	-1.5