

Pivot-row swap at column $k=2$ (buck-like 8×8 fixture)

Step 1. Before swap: column $k=2$ workspace loaded. $|x[2]| = 0.05$ is too small; pivot search finds $|x[7]| = 1.4$ (red).

L (stored)								x
0	1							
1	-0.3	1						
2	0.1	-0.4	1					0.1
3		0.2		1				-0.1
4		-0.1			1			
5						1		0.2
6							1	
7	0.5	0.3						1.4

Step 2. Swap rows 2 \leftrightarrow 7 in x AND in the already-stored L cols 0, 1 (yellow highlights).

L (stored)								x
0	1							
1	-0.3	1						
2	0.1	-0.4	1					0.1
3		0.2		1				-0.1
4		-0.1			1			
5						1		0.2
6							1	
7	0.5	0.3						1.4

Step 3. After swap: column 2 ready for pivot normalisation. P_{row} also updated: $P_{\text{row}}[2] \leftrightarrow P_{\text{row}}[7]$.

L (stored)								x
0	1							
1	-0.3	1						
2	0.5	0.3	1					1.4
3		0.2		1				-0.1
4		-0.1			1			
5						1		0.2
6							1	
7	0.1	-0.4						0.1