

Original matrix

compute reduced row echelon form (rref) of matrix A

Equation	Left Side	Right Side
1	$x + 2y + 3z$	1
2	$2x + 3y + 4z$	2
3	$3x + 4y + 5z$	3

Check

add the zero rows

Equation	Left Side	Right Side	Equation	Left Side	Right Side
			4	$0x + 0y + 0z$	0
1	$x + 2y + 3z$	1			
2	$2x + 3y + 4z$	2			
	$0x + 0y + 0z$	0	5	$0x + 0y + 0z$	0
	$0x + 0y + 0z$	0			
	$0x + 0y + 0z$	0			
	$0x + 0y + 0z$	0			
6	$0x + 0y + 0z$	0	7	$0x + 0y + 0z$	0
7	$0x + 0y + 0z$	0			
	$0x + 0y + 0z$	0			
	$0x + 0y + 0z$	0			
10	$0x + 0y + 0z$	0			
11	$0x + 0y + 0z$	0			
	$0x + 0y + 0z$	0			
	$0x + 0y + 0z$	0			