

## GUASS JORDAN ELIMINATION ME

### Example #1

$$X+Y-Z=7$$

$$X-Y+2Z=3$$

$$2X+Y+Z=9$$

Final product should look like this:  
Where "n" is any constant

X	Y	Z		Constant
	1	1	-1	7
	1	-1	2	3
	2	1	1	9

Step #1- Convert equation to matrix

X	Y	Z		Constant

**Step #2-** changing b 14 to b 22  
in b21 enter =b13 and p  
in b22 enter =(b13-b14)  
in b23 enter =b15 and p

X	Y	Z		Constant

**Step #3-** changing b 23 to b 31  
in b29 enter =b13 and p  
in b30 enter =b22 and p  
in b31 enter =B21 \* -2 +

X	Y	Z		Constant

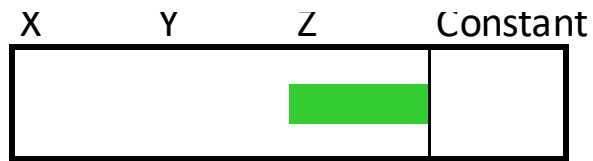
**Step #4** changing c 31 to c 39  
in b37 enter =29 and p  
in b38 enter =b30 and p  
in c 39 enter =c30+c31\*

X	Y	Z	Constant

changing d37 to d45

Step #5

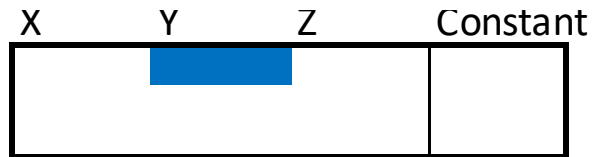
in b45 enter =3\*b37-38  
in b46 enter =b38 and p  
in b47 enter =b39 and p



Step #6-

changing d46 to d54

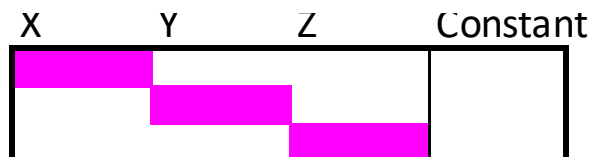
in b53 enter =b45 and p  
 in b54 enter =b46+b47  
 in b55 enter =b47 and p



Step #7-

changing c53 to c61

in b61 enter =b53\*2 - b54  
 in b62 enter =b54 and p  
 in b63 enter =b55 and p



Step #8-

changing the diagonals!

in b69 enter =b61\*(1/6)  
 in b70 enter =b62\*(1/2)  
 in b71 enter =b63\*(1/3)

$x=6$

$y=-1$

$z=2$

$(6,-1,2)$

## THOD USING EXCEL BLANK WORKSHEET

X	Y	Z	Constant
1	0	0	n
0	1	0	n
0	0	1	n

rice

press enter , drag over until e21  
and press enter, then drag over until e22  
press enter

press enter , drag over until e29  
press enter, drag over until e30  
B23 and press enter, drag over until e31

press enter, drag over until e37  
press enter, drag over until b38  
2 and press enter, drag over until e39 and include b 39

and press enter, drag over until e45  
press enter, drag over until b46  
press enter, drag over until b47

press enter, drag over until e53  
and press enter, drag over until e54  
press enter, drag over until e55

54 and press enter, drag over until e61  
press enter, drag over until e62  
press enter, drag over until e63

361, C63, and D63!

and press enter, drag over until e69  
) and press enter, drag over until e70  
) and press enter, drag over until e71

and press enter, drag over until e45  
press enter, drag over until b46  
press enter, drag over until b47

press enter, drag over until e53  
and press enter, drag over until e54  
press enter, drag over until e55

54 and press enter, drag over until e61  
press enter, drag over until e62  
press enter, drag over until e63

361, C63, and D63!

and press enter, drag over until e69  
) and press enter, drag over until e70  
) and press enter, drag over until e71