

gridlocks – can you unlock the grid?

Volume of gases

Before you answer the puzzles below fill in the table of different quantities of **helium** (He) gas:

	0.1	4	0.5	0.4	48
moles					
1					24
2			8		
			2		12
					2.4

Gridlock 1

Each row, column and 2 x 2 box contains each of the four quantities of He above. Use your problem solving skills and the answers in the table above to fill in the blank boxes.

moles		mass	
2			
		0.4	
		1	
	12		
volume		moles	

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Gridlock 2

Each row, column and 2 x 2 box contains four different volumes of **hydrogen** (H_2) gas.

moles		mass	
	1		0.2
			2
48			0.5
volume		moles	

Gridlock 3

Each row, column and 2 x 2 box contains four different volumes of **carbon dioxide** (CO_2) gas.

moles		mass	
2			132
			0.1
4.8			
volume		moles	

Volume of gases – answers

Before you answer the puzzles below fill in the table of different quantities of **helium** (He) gas:

moles	mass	volume
1	4	24
2	8	48
0.5	2	12
0.1	0.4	2.4

Gridlock 1 – answers

Each row, column and 2 x 2 box contains each of the four quantities of He above. Use your problem solving skills and the answers in the table above to fill in the blank boxes.

moles		mass	
2	0.1	2	4
0.5	1	0.4	8
2.4	48	1	0.5
24	12	2	0.1
volume		moles	

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Gridlock 2 – answers

moles		mass	
0.5	1	4	0.2
0.1	2	1	2
24	12	1	2
48	2.4	0.5	0.5
volume		moles	

Gridlock 3 – answers

moles		mass	
2	0.2	4.4	132
0.1	3	88	8.8
72	48	0.2	0.1
4.8	2.4	3	2
volume		moles	