

# 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					
mass					
volume					
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** ( $\text{H}_2$ ) 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** ( $\text{CO}_2$ ) gas.

moles		mass	
2			132
			0.1
4.8			
volume		moles	