Units of volume

Before you answer the puzzles below fill in the table of units using:

1,000,000   1000   ml   dm^3 cubic decimetre

Units	Symbol	Equivalent volume in cm^3	Equivalent volume in dm^3
cubic centimetre	cm^3	1	0.001
		1000	1
cubic metre	m^3		1000
millilitre		1	0.001
litre	l		1

Gridlock 1

Each row, column and 2 x 2 box contains the volumes 25, 100, 250 and 500 cm^3. Use your problem solving skills and the answers in the table above to fill in the blank boxes.

volume in cm^3		volume in dm^3	
25			0.5
	500		
		100	250
volume in dm^3		**volume in ml**	

Gridlock 2

Each row, column and 2 x 2 box contains the volumes 0.5,1, 24 and 1000 dm^3.

volume in cm^3		volume in dm^3	
24,000			
		0.5	
		0.001	
	1000		
volume in l		volume in m^3	

Gridlock 3

Each row, column and 2 x 2 box contains the volumes 20, 25, 10 and 100 cm^3.

volume in cm^3		volume in dm^3	
	20		0.1
			0.02
0.025			1×10^{-5}
volume in l		volume in m^3	

Units of volume – answers

Before you answer the puzzles below fill in the table of units using:

1,000,000   1000   ml   dm^3 cubic decimetre

Units	Symbol	Equivalent volume in cm^3	Equivalent volume in dm^3
cubic centimetre	cm^3	1	0.001
cubic decimetre	**dm^3**	1000	1
cubic metre	m^3	**1,000,000**	1000
millilitre	**ml**	1	0.001
litre	l	**1000**	1

Gridlock 1 – answers

volume in cm^3		volume in dm^3	
25	100	0.25	0.5
250	500	0.025	0.1
0.1	0.25	500	25
0.5	0.025	100	250
volume in dm^3		volume in ml	

gridlocks – can you unlock the grid?

Gridlock 2 – answers

volume in cm³		volume in dm³	
24,000	500	1000	1
1,000,000	1000	0.5	24
0.5	24	0.001	1
1	1000	0.024	0.0005
volume in l		volume in m³	

Gridlock 3 – answers

volume in cm³		volume in dm³	
10	20	0.025	0.1
100	25	0.01	0.02
0.02	0.01	1×10^{-4}	2.5×10^{-5}
0.025	0.1	2×10^{-5}	1×10^{-5}
volume in l		volume in m³	