

gridlocks – can you unlock the grid?

Atomic structure

Before you answer the Gridlocks below, fill in the table of isotopes:

isotope	number of protons	neutrons	electrons
${}^{19}_{9}\text{F}$			
${}^{35}_{17}\text{Cl}$			2,8,7
${}^2_1\text{H}$			
${}^7_3\text{Li}$			

Gridlock 1

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

isotope		number of protons	
${}^{35}_{17}\text{Cl}$			
		3	
		2,7	
	1		
	neutrons	electrons	

Gridlock 2

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

isotope		number of protons	
	$^{19}_9\text{F}$		3
			9
17			1
number of protons		neutrons	

Gridlock 3

This Gridlock is based on 4 different elements; you will have to work out what they are.

element		number of protons	
O			6
			2,8,1
11			

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number of protons

electrons