

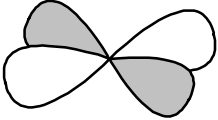


gridlocks – can you unlock the grid?

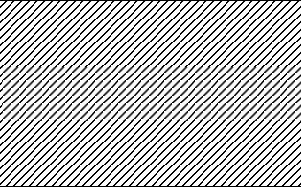
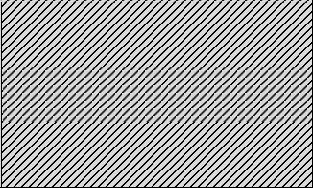
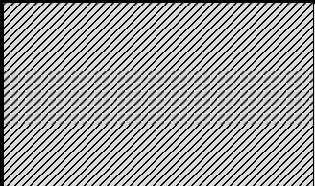
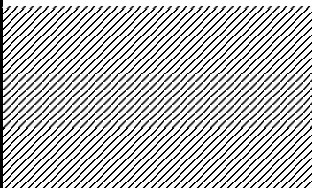
Subshells

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

	s	p	d	f
subshell	shape	number of orbitals in subshell	number of orbitals in subshell	number of orbitals in subshell
		1	3	5
		3	5	7
		5	7	9
				10

Gridlock 1

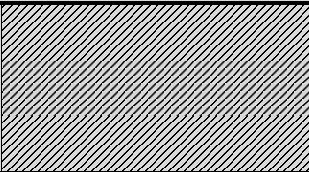
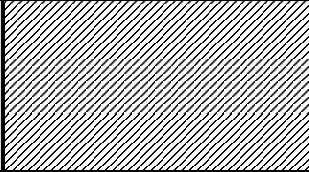
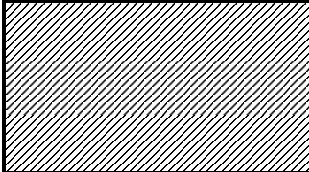
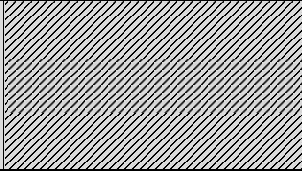
Each row, column and 2 x 2 box contains information about each subshell. Use your problem solving skills and the answers in the table above to fill in the blank boxes.

subshell		orbital shape	
s			
			
			s
		p	
shape		subshell	

gridlocks – can you unlock the grid?

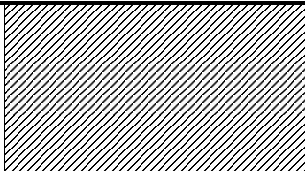
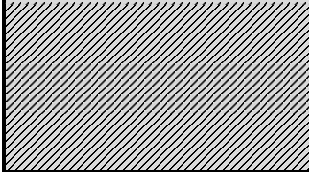

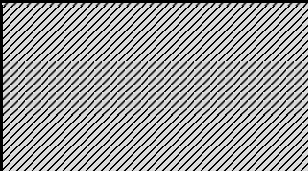
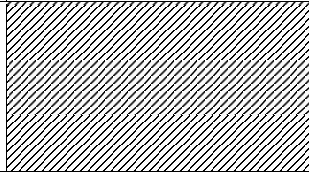
Gridlock 2

Each row, column and 2 x 2 box contains information about each type of subshell.

subshell		orbital shape	
p			
			
		2	
	5		
number of orbitals in subshell		number of electrons that can fit in subshell	


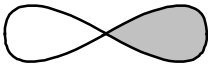
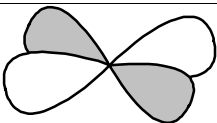
Gridlock 3

Each row, column and 2 x 2 box contains information about each type of subshell.

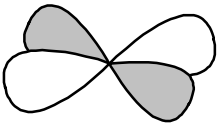
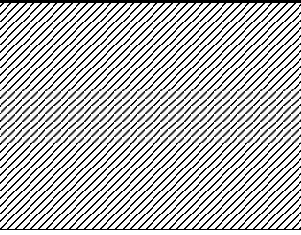
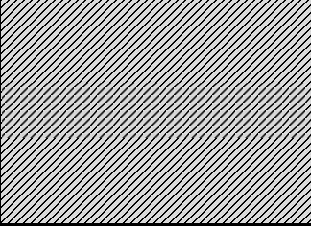

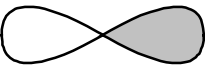
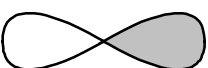
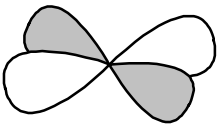
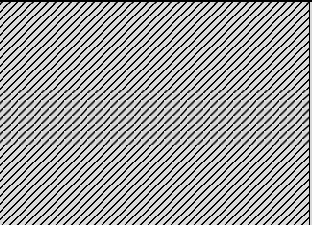
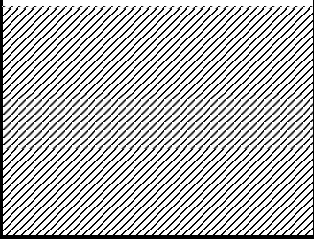

subshell		orbital shape	
	s		
			
			
3			10
number of orbitals in subshell		number of electrons that can fit in subshell	

gridlocks – can you unlock the grid?

Sub shells – answers

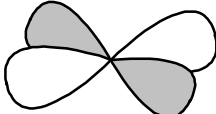

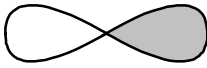
subshell	shape	number of orbitals in subshell	number of electrons that can fit in subshell
s		1	2
p		3	6
d		5	10

Gridlock 1 – answers

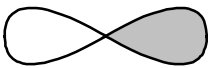
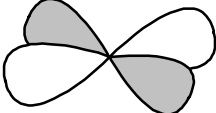

subshell		orbital shape	
s	p		
d			
			s
		p	d
shape		subshell	

gridlocks – can you unlock the grid?

Gridlock 2 – answers

subshell		orbital shape	
p			
d	s		
	3	2	10
1	5	6	
number of orbitals in subshell		number of electrons that can fit in subshell	

Gridlock 3 – answers

subshell		orbital shape	
d	s		
	p		
1	5		6
3		2	10
number of orbitals in subshell		number of electrons that can fit in subshell	