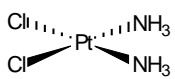
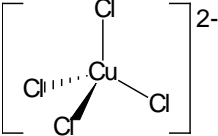
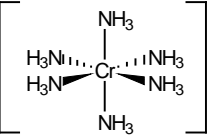


gridlocks – can you unlock the grid?

Complex ion shapes

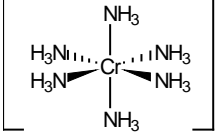
Before you answer the puzzles below fill in the table of shapes of complex ions using:

when ligand is large tetrahedral 4 square planar silver(I) complexes

shape	example	when formed	coordination number
linear	$[\text{NC—Ag—CN}]^-$		2
		platinum(II) complexes	4
			
octahedral		most common	6

Gridlock 1

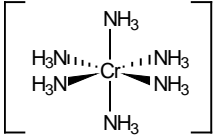
Each row, column and 2 x 2 box contains information about the four complex ion shapes. Use your problem solving skills and the answers in the table above to fill in the blank boxes.

shape		example	
linear			
	octahedral	$[\text{NC—Ag—CN}]^-$	
			linear
		square planar	
example		shape	

gridlocks – can you unlock the grid?

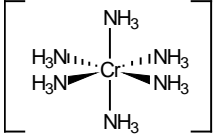
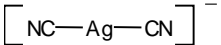
Gridlock 2

Each row, column and 2 x 2 box contains information about each of the four alloys in the table.

shape		example	
square planar			
			
		2	
	when ligand is large		
when formed		coordination number	

Gridlock 3

Each row, column and 2 x 2 box contains information about each of the four alloys in the table.

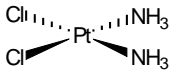
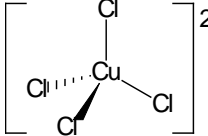
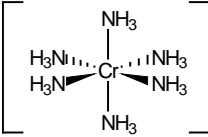
shape		example	
	linear		
			
platinum(II) complexes			4
when formed		coordination number	

gridlocks – can you unlock the grid?

Complex ion shapes – answers

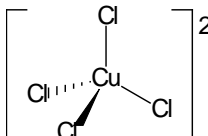
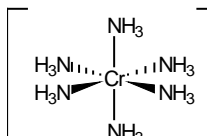
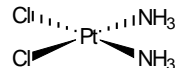
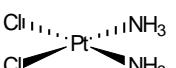
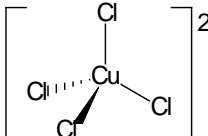
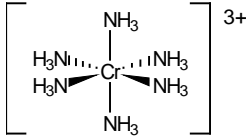
Before you answer the puzzles below fill in the table of shapes of complex ions using:

when ligand is large tetrahedral 4 square planar silver(I) complexes

shape	example	when formed	coordination number
linear	$[\text{NC—Ag—CN}]^-$	silver(I) complexes	2
square planar		platinum(II) complexes	4
tetrahedral		When ligand is large	4
octahedral		most common	6

Puzzle 1 – answers

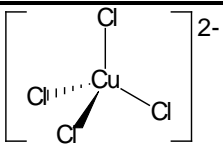
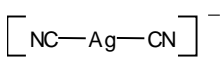
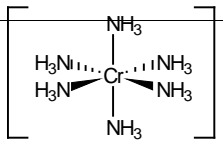
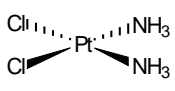
Each row, column and 2 x 2 box contains information about the four complex ion shapes. Use your problem solving skills and the answers in the table above to fill in the blank boxes.

shape		example	
linear	square planar		
tetrahedral	octahedral	$[\text{NC—Ag—CN}]^-$	
		octahedral	linear
	$[\text{NC—Ag—CN}]^-$	square planar	tetrahedral
example		shape	

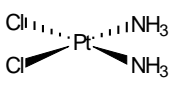
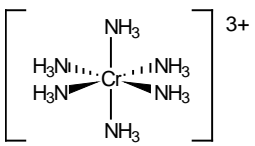
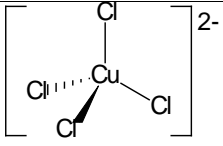
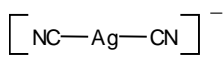
gridlocks – can you unlock the grid?

Puzzle 2 – answers

Each row, column and 2 x 2 box contains information about each of the four alloys in the table.

shape		example	
square planar	octahedral		
tetrahedral	linear		
most common	platinum(II) complexes	2	4 (tetrahedral)
silver(I) complexes	when ligand is large	4 (square planar)	6
when formed		coordination number	

Puzzle 3 – answers

shape		example	
tetrahedral	linear		
octahedral	square planar		
silver(I) complexes	when ligand is large	6	4
platinum(II) complexes	most common	2	4
when formed		coordination number	