

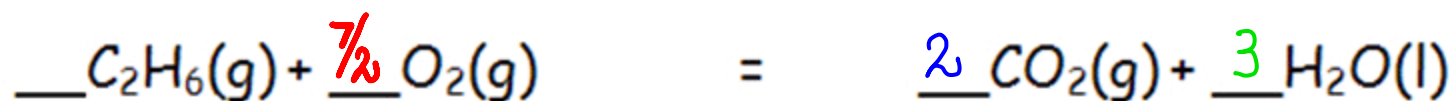
Class Announcements



4.4 How Do We Balance Chemical Equations?

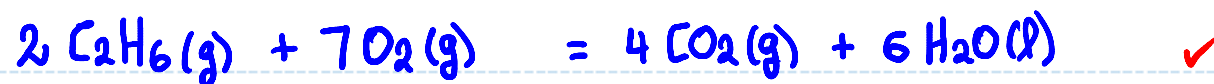
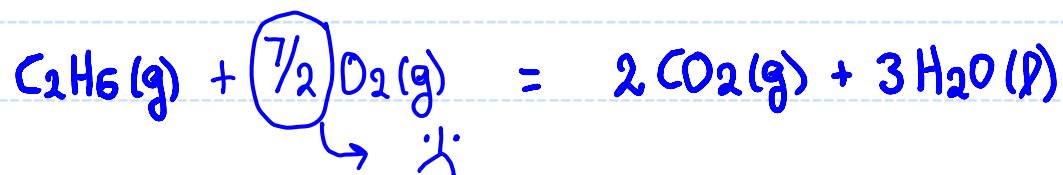
Example 2

Balance the following chemical equation:



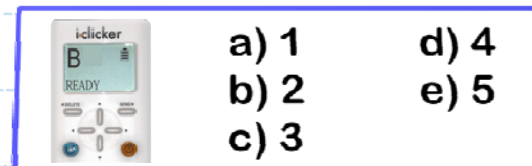
Reactants					✓
C	2	2	2	2	
H	6	6	6	6	
O	2	2	2	7	

Products					✓
C	1	2	2	2	
H	2	2	6	6	
O	3	5	7	7	



4.4 How Do We Balance Chemical Equations?

Example 3

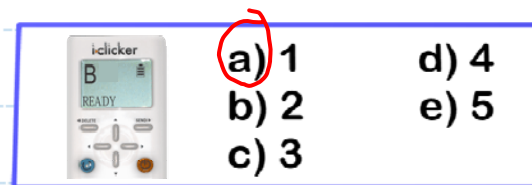


Balance the following chemical equation:



? What is taking you so long !!

4.4 How Do We Balance Chemical Equations? Example 3



Balance the following chemical equation:



Reactants				✓		
Ag	1	2	2			
NO ₃	1	2	2			
K	2	2	2			
CrO ₄	1	1	1			


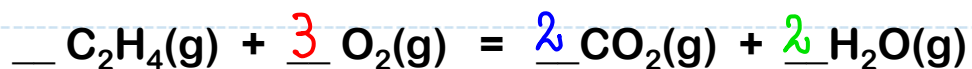
Products				✓		
Ag	2	2	2			
NO ₃	1	1	2			
K	1	1	2			
CrO ₄	1	1	1			



Polatomic ions ... when remaining intact ... treat as a single entity.

4.4 How Do We Balance Chemical Equations? Example 4

When the following chemical equation is balanced, the coefficient in front of the oxygen is:



a) 1 d) 4
b) 2 e) 5
c) 3

C		2	2	2	2
H		4	4	4	4
O		2	2	2	6

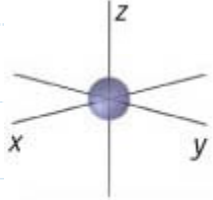
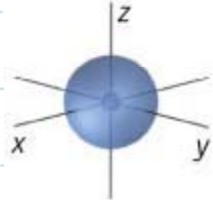
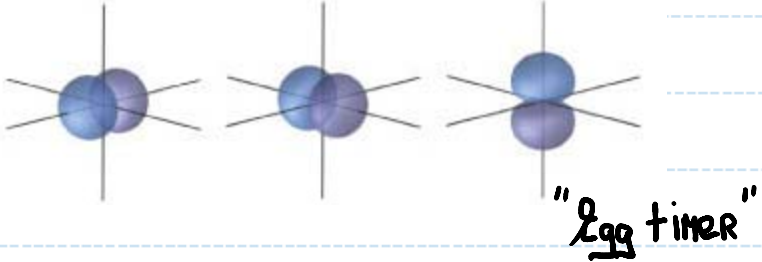
✓

C		1	2	2	2
H		2	2	4	4
O		3	5	6	6

✓

2.6 How Are the Electrons in an Atom Arranged?

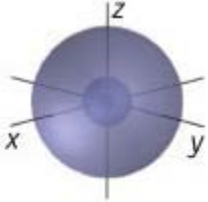
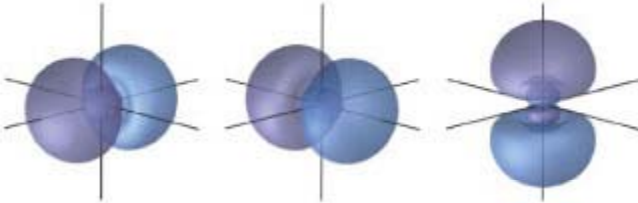
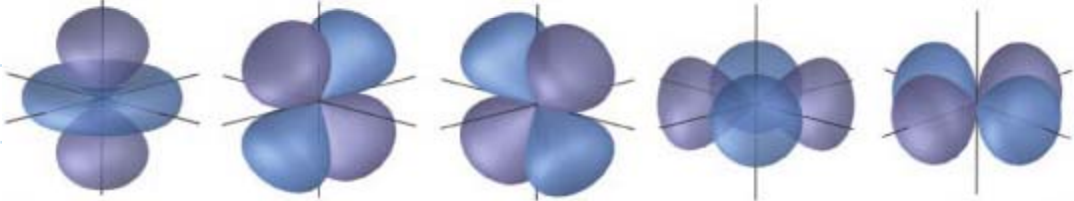
A Orbital Shapes

n	Orbitals		#	Label
1	1		1	1s
2	4		1	2s
			3	2p



2.6 How Are the Electrons in an Atom Arranged?

A Orbital Shapes

n	Orbitals		#	Label
		 <p style="margin-left: 150px;">Sphere</p>	1	3s
3	9	 <p style="margin-left: 150px;">'egg timer'</p>	3	3p
		 <p style="margin-left: 150px;">'4 leafed clover'</p>	5	3d

2.6 How Are the Electrons in an Atom Arranged? A Summary

n	TOTAL	Type	NUMBER
1	1	1s	1
2	4	2s	1
		2p	3
3	9	3s	1
		3p	3
		3d	5
4	16	4s	1
		4p	3
		4d	5
		4f	7

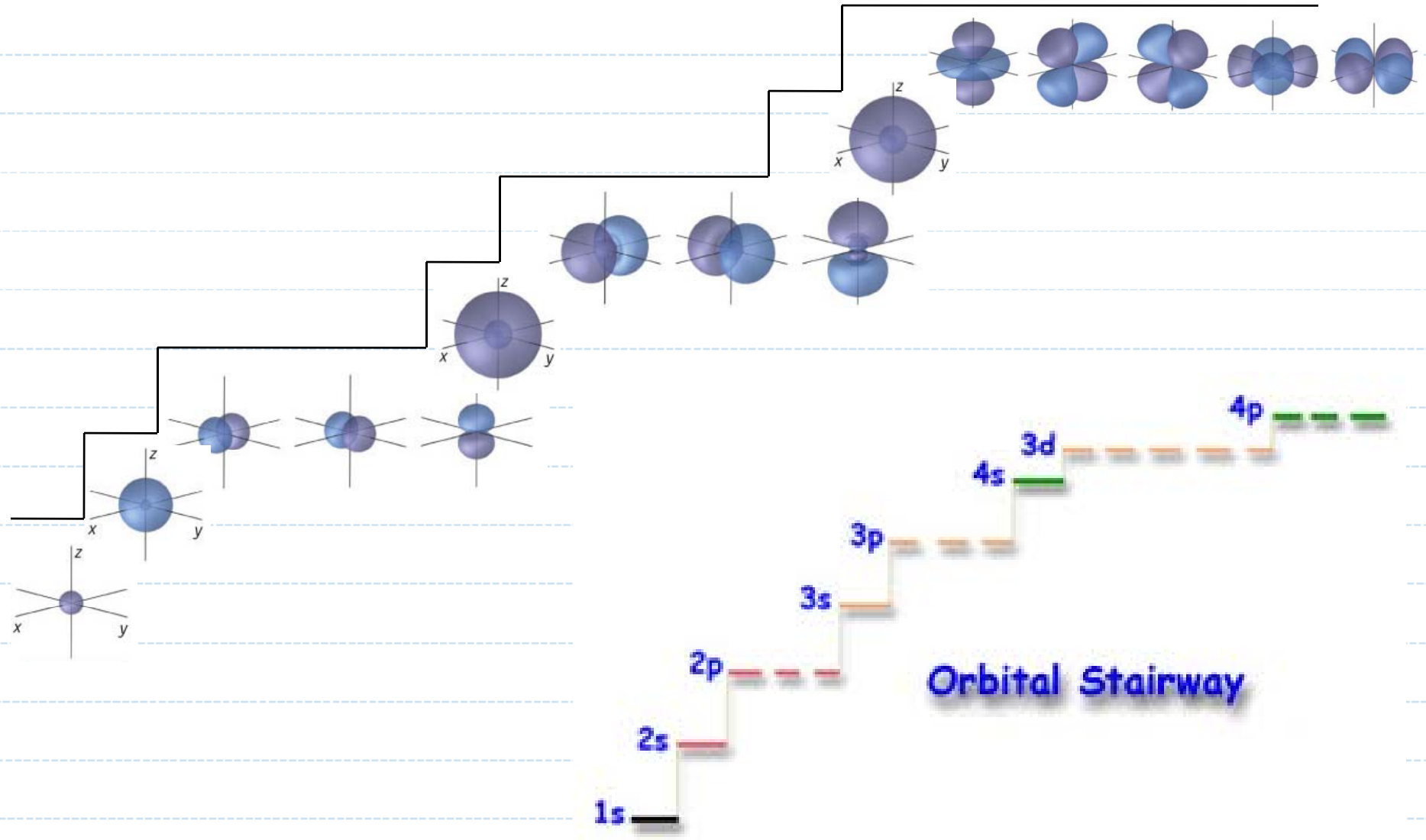


2.6

How Are the Electrons in an Atom Arranged?

A

Orbital Stairway





2.6 How Are the Electrons in an Atom Arranged?

Electron Configurations Worksheet.

ORBITAL BOX

Gp		#e	1s	2s	2p	3s	3p	Electronic Configuration	Noble Gas	Valence	Lewis Dot
1A	H	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>				H
8A	He	2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>				He
1A	Li	3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>				Li
2A	Be	4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>				Be
3A	B	5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>				B
4A	C	6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>				C
5A	N	7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>				N
6A	O	8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>				O
7A	F	9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>				F
8A	Ne	10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>				Ne

