QUANTUM NUMBERS

ENHANCEMENT QUESTION

1. Give the n and ℓ values for the following orbitals

Orbital	Value
1s	n = ℓ=
3s	n = ℓ=
2p	n = ℓ=
3d	n = ℓ=
4p	n = ℓ=

2. Which of the following quantum numbers are **allowed** or **not allowed**?

   (answer "**1**" if **Allowed** and "**2**" if **Not Allowed**)

Set quantum number				Answer
n	ℓ	m	s	
1	0	0	+½	
1	1	0	-½	
2	1	-2	+½	
2	0	+1	-½	
3	2	-1	+½	
3	1	0	-1	
3	0	+1	-½	

QUANTUM NUMBERS

3. State the maximum electrons that occupied by an orbital with the following quantum numbers:

Quantum Number	Number Of Electrons
n=2, *l* =0, s = -1/2	
n=3, *l*=2	
n=5, *l*=1	

4. State the orientation of each orbitals below

i. ii. iii.