

Quantum Numbers – Formula Sheet:

n	l	m_l	<i>Orbital Notation</i>	m_s	<i># of Orbitals in Subshell (l)</i>	<i># of Orbitals in Shell (n)</i>	<i># of electrons in Subshell (l)</i>	<i># of electrons in Shell (n)</i>
	$l \leq n - 1$	$-l \leq m_l \leq +l$			$2l + 1$	n^2	$4l + 2$	$2n^2$
1	0	0	1s	$\pm 1/2$	1	1	2	2
2	0	0	2s	$\pm 1/2$	1	4	2	8
	1	-1, 0, +1	2p	$\pm 1/2$	3		6	
3	0	0	3s	$\pm 1/2$	1	9	2	18
	1	-1, 0, +1	3p	$\pm 1/2$	3		6	
	2	-2, -1, 0, +1, +2	3d	$\pm 1/2$	5		10	
4	0	0	4s	$\pm 1/2$	1	16	2	32
	1	-1, 0, +1	4p	$\pm 1/2$	3		6	
	2	-2, -1, 0, +1, +2	4d	$\pm 1/2$	5		10	
	3	-3, -2, -1, 0, +1, +2, +3	4f	$\pm 1/2$	7		14	
5	0	0	5s	$\pm 1/2$	1	25	2	50
	1	-1, 0, +1	5p	$\pm 1/2$	3		6	
	2	-2, -1, 0, +1, +2	5d	$\pm 1/2$	5		10	
	3	-3, -2, -1, 0, +1, +2, +3	5f	$\pm 1/2$	7		14	
	4	-4, -3, -2, -1, 0, +1, +2, +3, +4	5g	$\pm 1/2$	9		18	