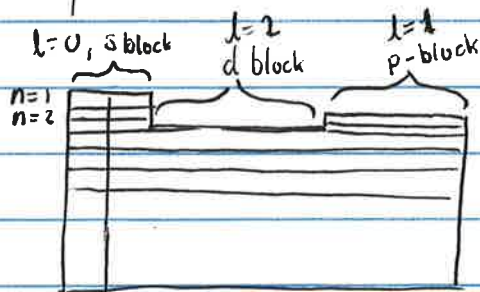
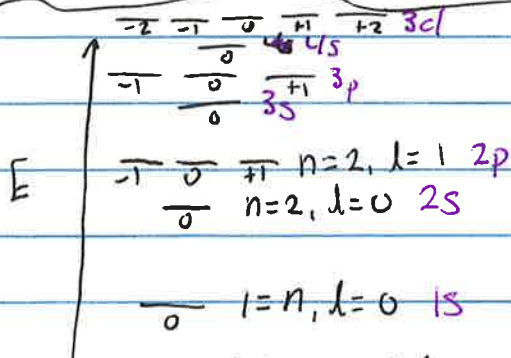


Today Oct 5: Sections 5.4-5.14

Sunday Oct 7: Problem club with Ali

Monday Oct 8: start ch 6

Tuesday Oct 9: No problem club with Ali



	$l=0$		$l=1$
$n=1$	1s		
$n=2$	2s		2p
$n=3$	3s		3p
$n=4$	4s	3d	4p
	5s	4d	5p
	6s	5d	6p
	7s	6d	7p
	~~~~~		
	s-block	d-block	p-block



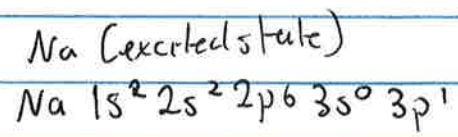
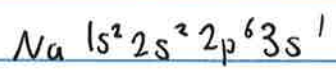
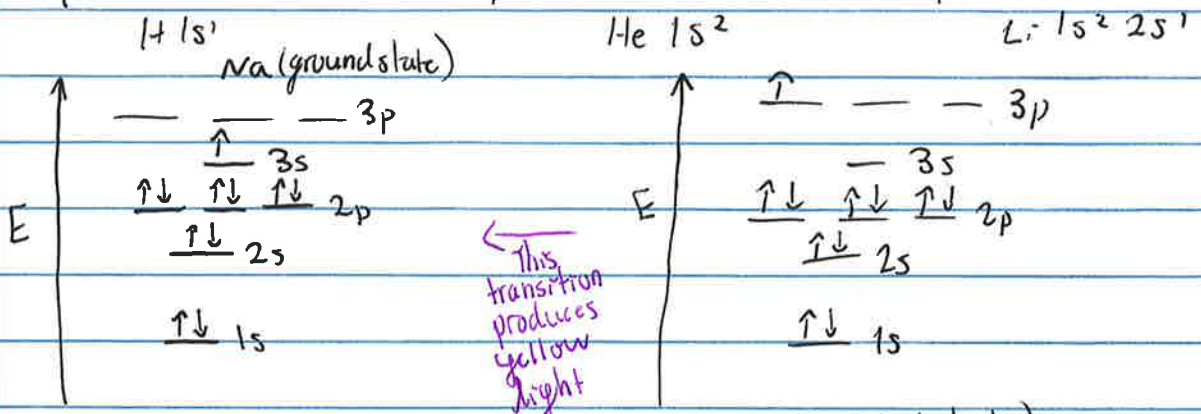
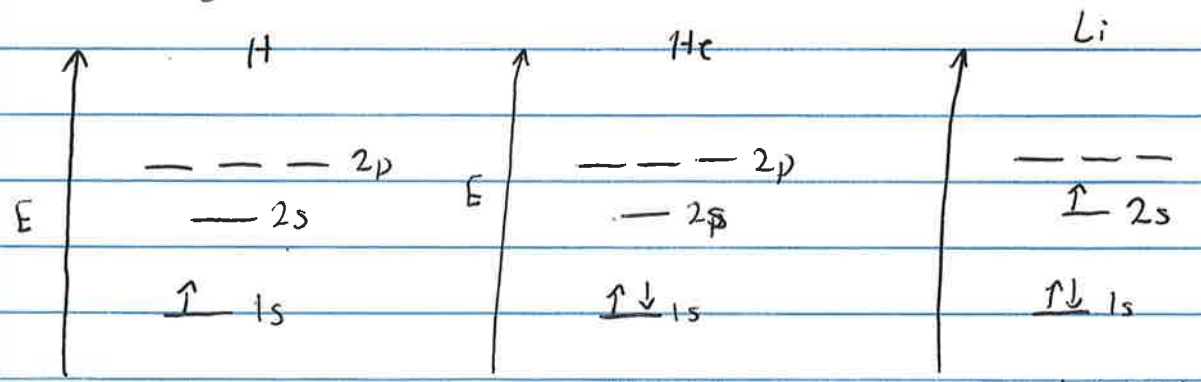
$$n=1, 2, \dots, \infty \quad 0 \leq l < n$$

$n$	$l$	$m_l$
1	0	0
2	0, 1	0
3	0, 1, 2	-1, 0, +1
4	0, 1, 2, 3	-1, 0, +1
5	0, 1, 2, 3, 4	-2, -1, 0, +1, +2

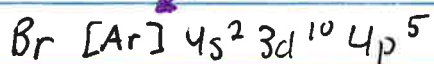
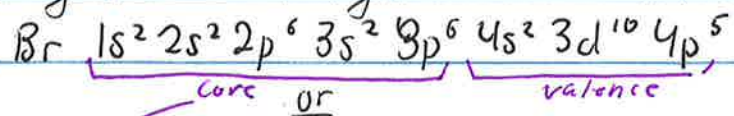
4<sup>th</sup> quantum number = spin quantum number ( $m_s$ )  
 - pertains to electrons only

$$m_s = +\frac{1}{2} \text{ or } -\frac{1}{2}$$

- designated with arrows:  $\uparrow$  ( $m_s = +\frac{1}{2}$ )  $\downarrow$  ( $m_s = -\frac{1}{2}$ )



Writing electron configurations: Bromine



"unpaired electrons"

How many unpaired electrons are in the ground state of Oxygen?

