

2. γ (LITHIUM) HAS THE FIRST 4d ELECTRON

for this electron $n = 4$

$l = 2$ (i.e. "d")

m_l can be $-2, -1, 0, +1, +2$

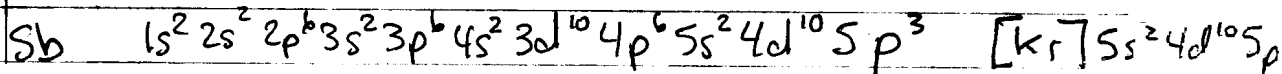
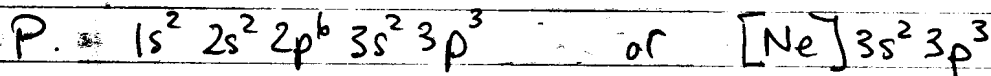
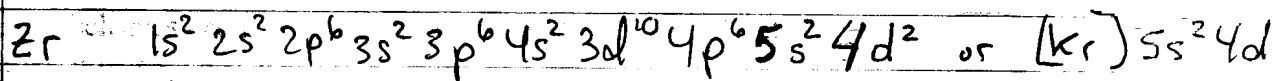
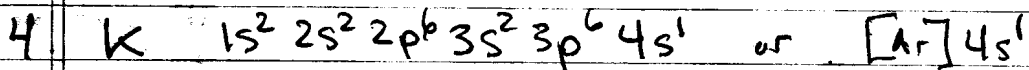
m_s can be $+\frac{1}{2}$ or $-\frac{1}{2}$... not be (4d)

There are 10 reasonable sets

for this e^- .

Here are two:

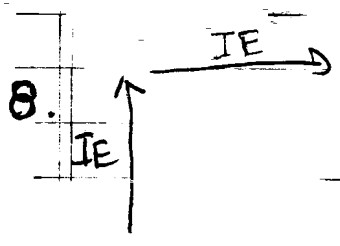
n	l	m_l	m_s
4	2	-2	$+\frac{1}{2}$
4	2		$-\frac{1}{2}$



5. Largest Cs > Ba > I > Br > Cl smallest

6. Paramagnetic = unpaired electrons Na, Al, Si, P, S, Cl
Mg and Ar are diamagnetic.



8.  Halogen w highest IE F Fluorine
Alkali m w lowest IE Fr Francium