

1. Where electrons are arranged in an atom

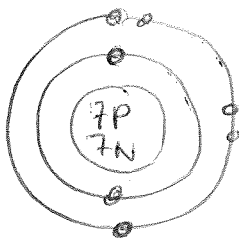
2. 2, 8, 8

3. a) 2 b) 6 c) 0

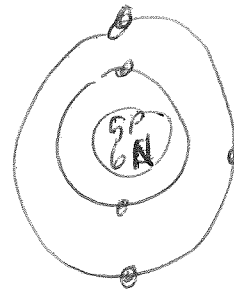
4. a) 2 b) 7 c) 0

5. H is full

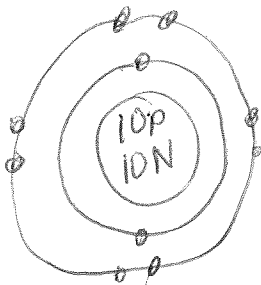
6. a) N



b) B

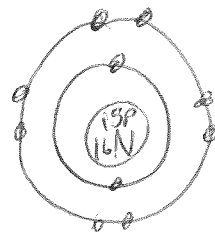


c) Ne

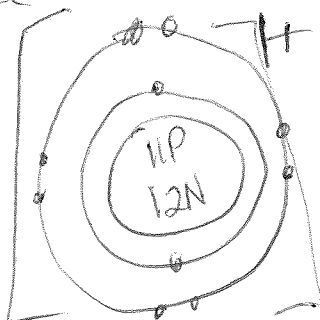


← note full outer shell!

d) P

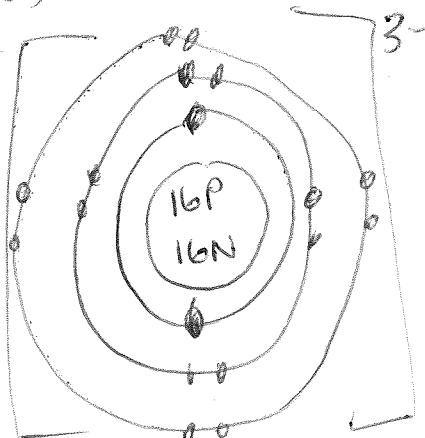


7. a) Na

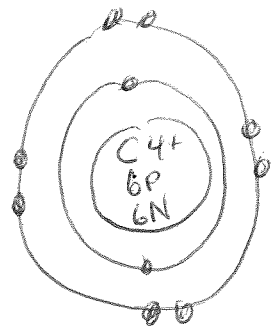


⊗ Note complete outer shells

b) ~~Bas~~ S



c) S



Ions will have an electron arrangement similar to a noble gas.

8. No! They already have full outer shells, so why bother trying to get more electrons or less electrons in order to fill that valence (outermost) orbital?

9. a) Group 1

b) Group 2

c) group 13 ^{eg. B + Al}

d) group 14 (eg C + Si)

e) group 15 (eg N + P)

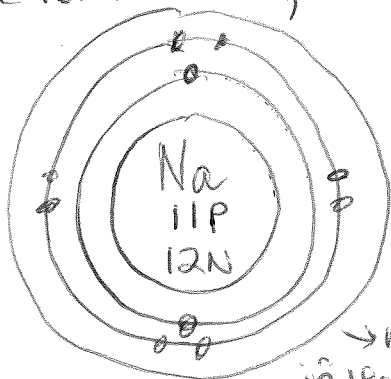
f) group 16 (O + S)

g) group 17 (F, Cl)

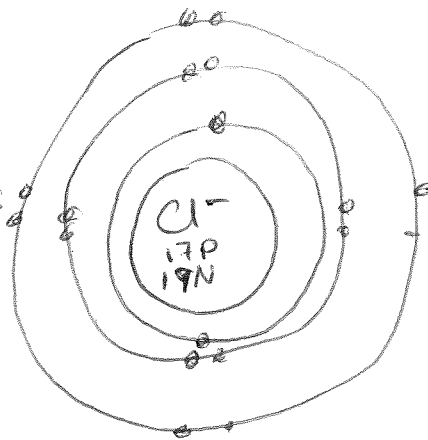
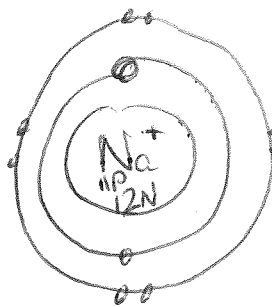
h) He, Ne, Ar

→ group 18, the Noble Gases

10 → Have not reviewed, but



→ no electrons in the outermost shell, because it forms an ion



11. a) Be: 4

N³⁻: 7

b) Be: 4

N³⁻: 8

c) Beryllium (atom) Nitrogen (ion)

d) atom, ion.

12. group 17! Fluorine, Chlorine also have 7 electrons in their outer shell.

13. Group 2, because similar to Beryllium and magnesium, it has 2 electrons in the outer shell and will likely also create an ion with a charge of 2+