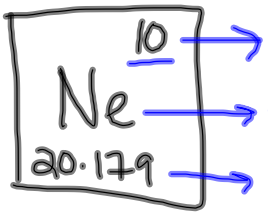
FIND Neon:



10 → atomic number....

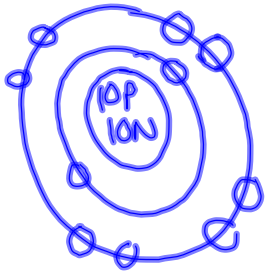
Ne → chemical symbol....

20.179 → atomic mass.... mass of 1 atom of this element - if we round this # we say it = the total # of particles in the nucleus.

② I.D. the parts of the box

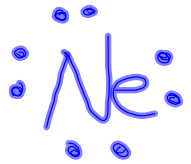
③ FIND: # of P: 10
e: 10
N: 10

④ Draw an atom of Neon:



⑤ How many valence electrons does an atom of neon have? 8

⑥ Draw a dot diagram:



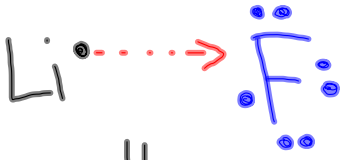
⑦ Will an atom of neon want to bond with other atoms?

IONIC BOND - occurs

When one atom gives away an electron (or electrons) to another atom (or atoms)

* usually you will find atoms with 1 and 2 valence electrons involved in ionic bonds!

Why? they want to give away their valence electron(s)



IONIC BOND - Li gives its 1 v.e. to Cl

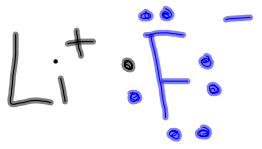
this bond creates an "IONIC compound"

LiF (lithium fluoride)

* an ION is an atom with a charge.

Where the Li is now ⊕ charged and the F is now ⊖ charged. The Li^+ and F^- atoms are now called IONS

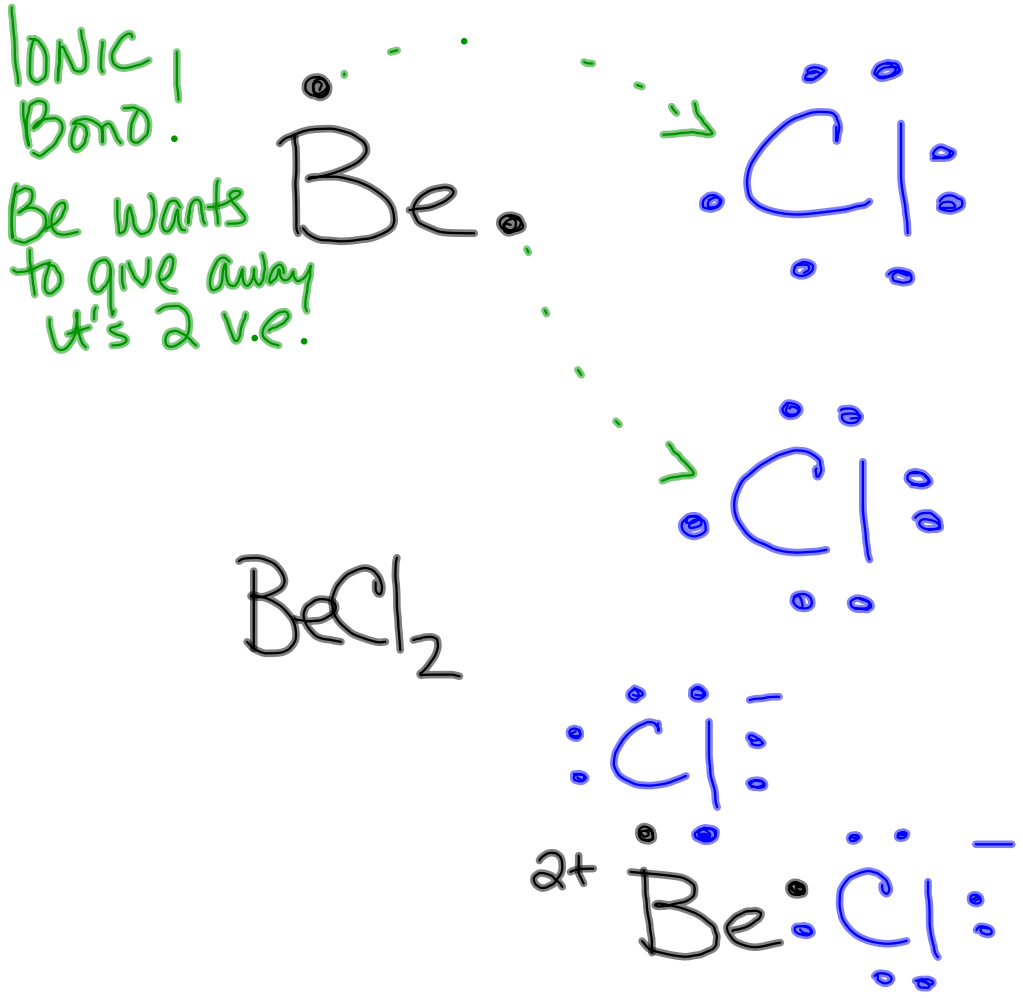
this is the dot diagram for the compound.



What holds this compound together? the attraction between the ⊕ ion and the ⊖ ion. Weak BOND

Ionic Bond!

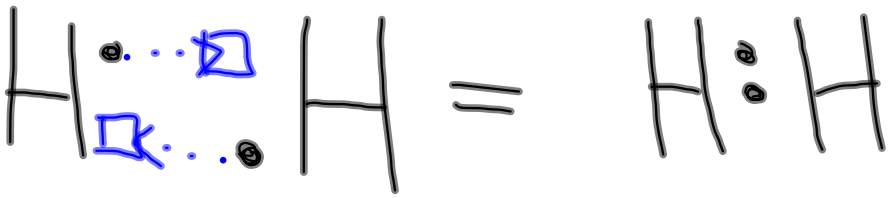
Be wants to give away it's 2 v.e.



$BeCl_2$

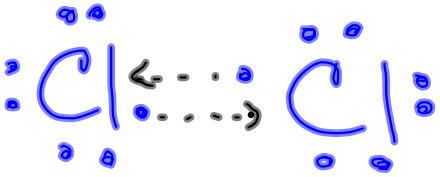
Covalent Bond:

occurs when 2 or more atoms share electrons



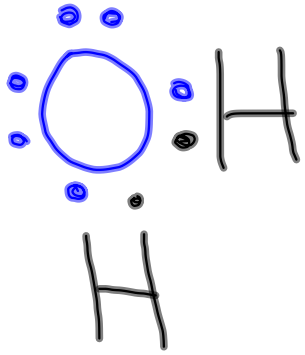
H_2

Covalent Compound



Cl_2

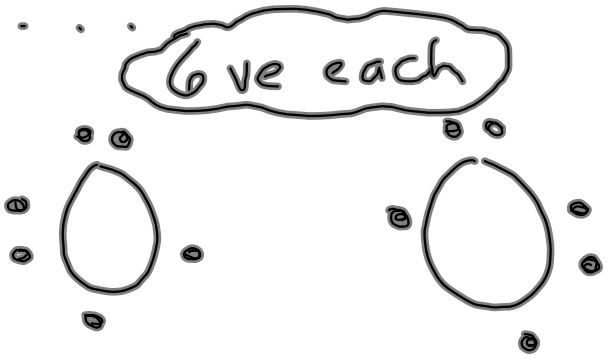
ex)



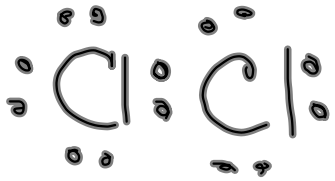
Covalent BONDS - strong bonds because the electrons are shared! tug of war!

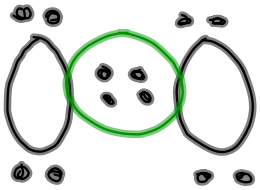
Double + Triple covalent bonds....

Single Covalent bond



each wants 2- so they will share 2 each...





double bond!