

# Assion # 11

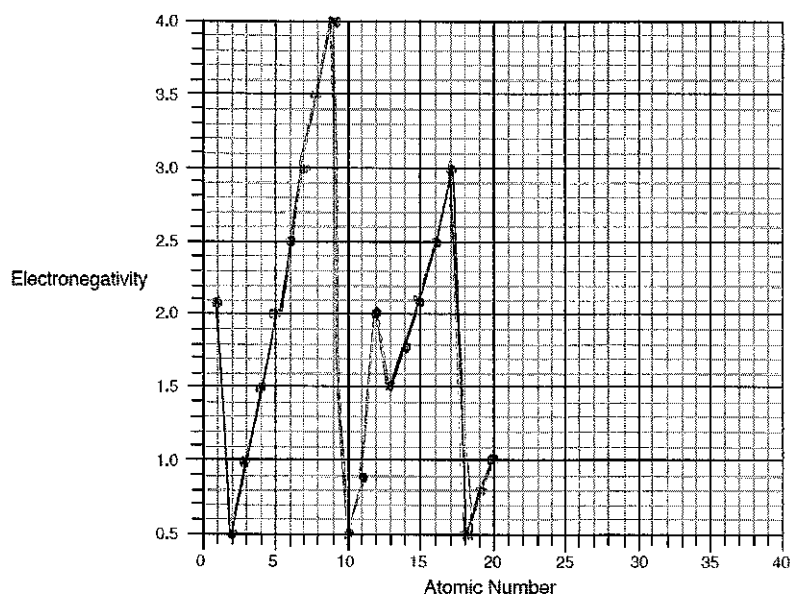
Name

Key

Block

## Graphing – Electronegativity as a function of Atomic Number

- Create a graph of the electronegativity as a function of atomic number. Plot atomic number on the X axis and electronegativity on the Y axis. Remember to label the axes!
- Use a colored pen, pencil or highlighter to **trace over** the element's period (horizontal row on the periodic table). For example: use GREEN to **trace** for all of the elements in row 1, then use YELLOW to **trace** for all of the elements in row 2, then use ORANGE to **trace** for all the elements in row 3, then use BLUE to **trace** for all the elements in row 4.



Symbol	Atomic Number	Electronegativity
H	1	2.1
He	2	0
Li	3	1.0
Be	4	1.5
B	5	2.0
C	6	2.5
N	7	3.0
O	8	3.5
F	9	4.0
Ne	10	0
Na	11	0.9
Mg	12	2.0
Al	13	1.5
Si	14	1.8
P	15	2.1
S	16	2.5
Cl	17	3.0
Ar	18	0
K	19	0.8
Ca	20	1.0

- Describe the trend in electronegativity as the atomic number increases across a period.

INCREASES

- Describe the trend in electronegativity as the atomic number increases down a group.

DECREASES

- Why do you think the electronegativity of He, Ne and Ar is 0?

Electronegativity – measures the tendency of an atom to attract electrons

Since He, Ne, and Ar are in the noble gas family their outer shell is full with electrons.

Helium has 2 val. electrons  
Neon and Argon have 8 val. electrons. When the outer shell is full atoms can't attract anymore so their electronegativity is zero