Name: Key 2019
Period: 10 Date: _____

Chemistry: *Atomic Number and Mass Number*

Complete the following chart and answer the questions below.

Element Name	*Atomic Number*	*Number of Protons*	*Number of Neutrons*	*Mass Number*	*Number of Electrons*
carbon	6	6	6	12	6
oxygen	8	8	8	16	8
hydrogen	1	1	0	1	1
carbon-14	6	6	8	14	6
hydrogen	1	1	2	3	1
nitrogen	7	7	7	14	7
hydrogen-2	1	1	1	2	1
uranium	92	92	146	238	92
cesium	55	55	82	137	55
sodium	11	11	12	23	11
silver-108	47	47	61	108	47
tungsten	74	74	110	184	74
bromine	35	35	45	80	35
chromium	24	24	28	52	24
europium	63	63	89	152	63
silver	47	47	60	107	47
osmium	76	76	114	190	76

How are the *atomic number* and the *number of protons* related to each other?

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How do the *number of protons*, *number of neutrons*, and the *mass number* relate to each other?

$p^+ + n^\circ = \text{mass \#}$

What is the *one thing* that determines the identity of an atom (that is, whether it is an oxygen atom or a carbon atom, etc.)?

p^+ !