Name KEY Period _____ Date _____

ISOTOPES, IONS, AND ATOMS WORKSHEET

Atomic # = # of protons. Mass # = Atomic # + neutrons. Protons = electrons when charge is zero.

Atomic #	Mass #	# p^+	# e^-	# n^0	charge	Symbol
1) 17	36	17	17	19	0	$^{36}_{17}Cl$
2) 71	180	71	71	109	Ø	$^{180}_{71}Lu$
3) 40	86	40	38	46	+2	$^{86}_{40}Zr^{+2}$
4) 92	238	92	86	146	+6	$^{}_{92}U^{+6}$
5) 82	206	82	78	124	+4	$^{206}_{82}Pb^{4+}$
6) 34	79	34	36	45	-2	$^{79}_{34}Se^{-2}$
7) 48	113	48	49	65	-1	$^{113}_{48}Cd^{-1}$
8) 21	42	21	21	21	0	$^{42}_{21}Sc$
9) 15	31	15	18	16	-3	$^{31}_{15}P^{3-}$
10) 83	209	83	80	126	+3	$^{209}_{83}Bi^{+3}$
11) 47	108	47	47	61	Ø	$^{108}_{47}Ag$
12) 49	116	49	46	67	+3	$^{116}_{49}In^{+3}$
13) 53	128	53	54	75	-1	$^{128}_{53}I^{-1}$
14) 76	188	76	72	112	+4	$^{188}_{76}Os^{+4}$

Name KEY Period _____ Date _____

ISOTOPES, IONS, AND ATOMS WORKSHEET 2

Atomic #	Mass #	# p^+	# e^-	# n^0	charge	Symbol
1) 14	30	14	10	16	+4	$^{30}_{14}Si^{+4}$
2) 33	75	33	36	42	-3	$^{75}_{33}As^{-3}$
3) 51	130	51	54	79	-3	$^{130}_{51}Sb^{-3}$
4) 99	252	99	96	153	+3	$^{252}_{99}Es^{+3}$
5) 82	208	82	80	126	+2	$^{208}_{82}Pb^{2+}$
6) 52	128	52	54	76	-2	$^{128}_{52}Te^{-2}$
7) 48	113	48	49	65	-1	$^{113}_{48}Cd^{-1}$
8) 42	98	42	36	56	+6	$^{98}_{42}Mo^{+6}$
9) 7	17	7	10	10	-3	$^{17}_{7}N^{3-}$
10) 83	209	83	78	126	+5	$^{209}_{83}Bi^{+5}$
11) 46	110	46	46	64	Ø	$^{110}_{46}Pd$
12) 50	124	50	46	74	+4	$^{124}_{50}Sn^{+4}$
13) 35	79	35	36	44	-1	$^{79}_{35}Br^{-1}$
14) 60	148	60	58	88	+2	$^{148}_{60}Nd^{+2}$