

Name: _____

PERIODIC TABLE OF ELEMENTS

1A Group 1 Valence Electron		2A Group 2 Valence Electrons										3A Group 3 Valence Electrons										4A Group 4 Valence Electrons					5A Group 5 Valence Electrons					6A Group 6 Valence Electrons					7A Group 7 Valence Electrons					8A Group 8 Valence Electrons																																																																																																																																											
1 1.0 H Hydrogen 1.0079		3 1.0 4 1.5 Li Be Lithium Beryllium 6.941 9.0122										5 1.5 6 2.0 7 3.0 B C N Boron Carbon Nitrogen 10.81 12.011 14.007										8 2.5 9 3.0 10 4.0 O F Ne Oxygen Fluorine Neon 15.999 18.998 20.179					11 0.9 12 1.2 Na Mg Sodium Magnesium 22.990 24.305					13 1.5 14 1.8 15 2.1 16 2.5 17 3.0 18 4.0 Al Si P S Cl Ar Aluminum Silicon Phosphorus Sulfur Chlorine Argon 26.982 28.086 30.974 32.06 35.453 39.948										19 0.8 20 1.0 21 1.3 22 1.5 23 1.6 24 1.6 25 1.5 26 1.8 27 1.8 28 1.8 29 1.9 30 1.6 31 1.6 32 1.8 33 2.0 34 2.4 35 2.8 36 3.0 K Ca Sc Ti V Cr Mn Fe Co Ni Cu Zn Ga Ge As Se Br Kr Potassium Calcium Scandium Titanium Vanadium Chromium Manganese Iron Cobalt Nickel Copper Zinc Gallium Germanium Arsenic Selenium Bromine Krypton 39.098 40.08 44.956 47.90 50.941 51.996 54.938 55.847 58.933 58.71 63.546 65.38 69.72 72.59 74.922 78.96 79.904 83.80										37 0.8 38 1.0 39 1.2 40 1.4 41 1.6 42 1.8 43 1.9 44 2.2 45 2.2 46 2.2 47 1.9 48 1.7 49 1.7 50 1.8 51 1.9 52 2.1 53 2.5 54 2.6 Rb Sr Y Zr Nb Mo Tc Ru Rh Pd Ag Cd In Sn Sb Te I Xe Rubidium Strontium Yttrium Zirconium Niobium Molybdenum Technetium (98) Ruthenium Rhodium Palladium Silver Cadmium Indium Tin Antimony Tellurium Iodine Xenon 85.468 87.62 88.906 91.22 92.906 95.94 101.07 102.91 106.4 107.87 121.75 127.60 126.90 131.30										55 0.7 56 0.9 57 1.1 72 1.3 73 1.5 74 1.7 75 1.9 76 2.2 77 2.2 78 2.2 79 2.4 80 1.9 81 1.8 82 1.8 83 1.9 84 2.0 85 2.2 86 2.4 Cs Ba La Hf Ta W Re Os Ir Pt Au Hg Tl Pb Bi Po At Rn Cesium Barium Lanthanum Hafnium Tantalum Tungsten Rhenium Osmium Iridium Platinum Gold Mercury Thallium Lead Bismuth Polonium Astatine Radon 132.91 137.33 138.91 178.49 180.95 183.85 186.21 190.2 192.22 195.09 196.97 200.59 204.37 207.2 208.98 (209) (210) (222)										87 0.7 88 0.9 89 1.1 104 * 105 * 106 * 107 * 108 * 109 * 110 * 111 * 112 * 113 * 114 * 115 * 116 * 117 * 118 * Fr Ra Ac Rf Db Sg Bh Hs Mt Ds Rg Cn Nh Fl Mc Lv Ts Og Francium (223) Radium (226) Actinium (227) Rutherfordium (261) Dubnium (262) Seaborgium (263) Bohrium (264) Hassium (265) Meitnerium (268) Darmstadtium (269) Roentgenium (272) Copernicium (285) Nihonium (284) Flerovium (289) Moscovium (288) Livermorium (292) Tennessine (294) Oganesson (294)										[Rn] 7s ¹ [Rn] 7s ² [Rn] 7s ² 6d ¹ [Rn] 7s ² 6d ² 5f ¹⁴ [Rn] 7s ² 6d ³ 5f ¹⁴ [Rn] 7s ² 6d ⁴ 5f ¹⁴ [Rn] 7s ² 6d ⁵ 5f ¹⁴ [Rn] 7s ² 6d ⁶ 5f ¹⁴ [Rn] 7s ² 6d ⁷ 5f ¹⁴ [Rn] 7s ² 6d ⁸ 5f ¹⁴ [Rn] 7s ² 6d ⁹ 5f ¹⁴ [Rn] 7s ² 6d ¹⁰ 5f ¹⁴ [Rn] 7s ² 6d ¹⁰ 5f ¹⁴ 7p ¹ [Rn] 7s ² 6d ¹⁰ 5f ¹⁴ 7p ² [Rn] 7s ² 6d ¹⁰ 5f ¹⁴ 7p ³ [Rn] 7s ² 6d ¹⁰ 5f ¹⁴ 7p ⁴ [Rn] 7s ² 6d ¹⁰ 5f ¹⁴ 7p ⁵ [Rn] 7s ² 6d ¹⁰ 5f ¹⁴ 7p ⁶																																																																																																			
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		[Xe] 6s ¹										[Xe] 6s ²										[Xe] 6s ² 5d ¹										[Xe] 6s ² 5d ² 4f ¹⁴										[Xe] 6s ² 5d ³ 4f ¹⁴										[Xe] 6s ² 5d ⁴ 4f ¹⁴										[Xe] 6s ² 5d ⁵ 4f ¹⁴										[Xe] 6s ² 5d ⁶ 4f ¹⁴										[Xe] 6s ² 5d ⁷ 4f ¹⁴										[Xe] 6s ² 5d ⁸ 4f ¹⁴										[Xe] 6s ² 5d ⁹ 4f ¹⁴										[Xe] 6s ² 5d ¹⁰ 4f ¹⁴										[Xe] 6s ² 5d ¹⁰ 4f ¹⁴ 6p ¹										[Xe] 6s ² 5d ¹⁰ 4f ¹⁴ 6p ²										[Xe] 6s ² 5d ¹⁰ 4f ¹⁴ 6p ³										[Xe] 6s ² 5d ¹⁰ 4f ¹⁴ 6p ⁴										[Xe] 6s ² 5d ¹⁰ 4f ¹⁴ 6p ⁵										[Xe] 6s ² 5d ¹⁰ 4f ¹⁴ 6p ⁶									
		[Rn] 7s ¹										[Rn] 7s ²										[Rn] 7s ² 6d ¹										[Rn] 7s ² 6d ² 5f ¹⁴										[Rn] 7s ² 6d ³ 5f ¹⁴										[Rn] 7s ² 6d ⁴ 5f ¹⁴										[Rn] 7s ² 6d ⁵ 5f ¹⁴										[Rn] 7s ² 6d ⁶ 5f ¹⁴										[Rn] 7s ² 6d ⁷ 5f ¹⁴										[Rn] 7s ² 6d ⁸ 5f ¹⁴										[Rn] 7s ² 6d ⁹ 5f ¹⁴										[Rn] 7s ² 6d ¹⁰ 5f ¹⁴										[Rn] 7s ² 6d ¹⁰ 5f ¹⁴ 7p ¹										[Rn] 7s ² 6d ¹⁰ 5f ¹⁴ 7p ²										[Rn] 7s ² 6d ¹⁰ 5f ¹⁴ 7p ³										[Rn] 7s ² 6d ¹⁰ 5f ¹⁴ 7p ⁴										[Rn] 7s ² 6d ¹⁰ 5f ¹⁴ 7p ⁵										[Rn] 7s ² 6d ¹⁰ 5f ¹⁴ 7p ⁶									
		58 1.1 59 1.1 60 1.1 61 1.1 62 1.2 63 1.1 64 1.2 65 1.1 66 1.2 67 1.2 68 1.2 69 1.3 70 1.1 71 1.3 Ce Pr Nd Pm Sm Eu Gd Tb Dy Ho Er Tm Yb Lu Cerium Praseodymium Neodymium Promethium (145) Samarium Europium Gadolinium Terbium Dysprosium Holmium Erbium Thulium Ytterbium Lutetium 140.12 140.91 144.24 145 150.4 151.96 157.25 158.93 162.50 164.93 167.26 168.93 173.04 174.97										90 1.3 91 1.5 92 1.4 93 1.4 94 1.3 95 1.3 96 1.3 97 1.3 98 1.3 99 1.3 100 1.3 101 1.3 102 1.3 103 * Th Pa U Np Pu Am Cm Bk Cf Es Fm Md No Lr Thorium Protactinium Uranium Neptunium Plutonium Americium Curium Berkelium Californium Einsteinium Fermium Mendelevium Nobelium Lawrencium 232.04 231.04 238.03 237 244 243 247 247 251 252 257 258 259 262										[Rn] 7s ² 6d ² [Rn] 7s ² 6d ¹ 5f ² [Rn] 7s ² 6d ¹ 5f ³ [Rn] 7s ² 6d ¹ 5f ⁴ [Rn] 7s ² 5f ⁶ [Rn] 7s ² 5f ⁷ [Rn] 7s ² 6d ¹ 5f ⁷ [Rn] 7s ² 5f ⁹ [Rn] 7s ² 5f ¹⁰ [Rn] 7s ² 5f ¹¹ [Rn] 7s ² 5f ¹² [Rn] 7s ² 5f ¹³ [Rn] 7s ² 5f ¹⁴ [Rn] 7s ² 6d ¹ 5f ¹⁴																																																																																																																																																															

Physical States (room temperature)
 Solid = □ Liquid = ● Gas = ○ Lab synthesized = ⚗

Atomic Number = # of Protons
 6 2.5
C
 Carbon
 12.011
 [He] 2s² 2p²

Mass Number = # of Protons PLUS # of Neutrons

Electron Configuration Noble Gas Notation

Electronegativity
 If the difference is:
 0.0 - 0.39 Non Polar
 0.4 - 1.99 Polar
 2.0 - 3.30 Ionic Bond

Type of Element

- Alkali Metals
- Alkaline Earth Metals
- Transition Metals
- Lanthanides (metals)
- Actinides (metals)
- Metalloids
- Non-metals
- Noble Gases (non-metals)