X	
Li – Lithium Atomic number 3 Physical State solid Density 0.534 g/cm^3 Conductivity good Melting Point 180°C Color silver Reactivity very reactive Period 2 Electron per shell 2, **1**	**Be – Beryllium** Physical State solid Density 1.85 g/cm^3 Conductivity excellent Melting Point 1287°C Color gray Reactivity reactive Ionization energy 9.322 **Period 2**
Na – Sodium Atomic number 11 Physical State solid Density 0.971 g/cm^3 Conductivity good Melting Point 98 °C Color silver Reactivity very reactive Ionization energy 5.139 Electron per shell 2, 8, **1**	X
K – Potassium Atomic number 19 Density 0.86 g/cm^3 Conductivity good Melting Point 63 °C Color silver Reactivity very reactive **Period 4** Electron per shell 2, 8, 8, **1**	**Ca – Calcium** Atomic number 20 Density 1.57 g/cm^3 Conductivity good Melting Point 845 °C Color silvery white Reactivity reactive Ionization energy 6.113 **Period 4**

X	**Sr – Strontium** Atomic number 38 Physical State solid Conductivity good Melting Point 769 °C Color silvery white Reactivity very reactive Ionization energy 5.695 Group 2 Electron per shell 2, 8, 18, 8, **2**
Cs – Cesium Atomic number 55 Physical State solid Density 1.87 g/cm^3 Conductivity good Melting Point 29 °C Color silvery white Reactivity very reactive Electron per shell 2, 8, 18, 18, 8, **1**	**Ba – Barium** Atomic number 56 Physical State solid Density 3.6 g/cm^3 Conductivity good Melting Point 710 °C Color silvery white Reactivity reactive Electron per shell 2, 8, 18, 18, 8, **2**
Fr - Francium Atomic number 87 Physical State gas Density 2.9 g/cm^3 Conductivity good Melting Point 30 °C Reactivity very reactive Electron per shell 2, 8, 18, 32, 18, 8, **1**	**R – Radium** Atomic number 88 Physical State solid Density 7.31 g/cm^3 Conductivity medium Melting Point 157 °C Color silvery white Ionization energy 5.786 Electrons per shell 2, 8, 18, 32, 18, 8, **2**

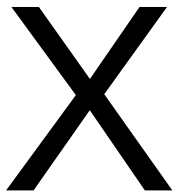
N – Nitrogen Atomic number 7 Physical State gas Density 0.00125 g/cm^3 Conductivity **poor** Melting Point -210°C Color colorless Ionization energy **14.534**	**O – Oxygen** Atomic number **8** Physical State gas Density 0.0013 g/cm^3 Conductivity poor Melting Point -219°C Color colorless Reactivity reactive Ionization energy **13.618**
P – Phosphorus Atomic number 15 Physical State solid Density 1.823 g/cm^3 Conductivity **poor** Melting Point 44.2 °C Color white Ionization energy **10.486**	X

As – Arsenic

Atomic number	**33**
Physical State	solid
Density	5.776 g/cm^3
Conductivity	**poor**
Melting Point	817 °C
Color	gray
Ionization energy	**9.81**

Se – Selenium

Atomic number	**34**
Physical State	solid
Density	4.81 g/cm^3
Conductivity	semi-conduct
Melting Point	221°C
Color	gray/red/black
Reactivity	reactive
Ionization energy	**9.752**

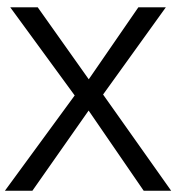


Te - Tellurium

Atomic number	52
Physical State	solid
Density	6.24 g/cm^3
Conductivity	semi-conduct
Melting Point	450°C
Color	silvery gray
Reactivity	reactive
Ionization energy	**9.009**

Br - Bromine

Atomic number	35
Physical State	gas
Density	3.12 g/cm^3
Conductivity	very poor
Melting Point	-7.2°C
Color	reddish brown
Reactivity	very reactive
Ionization energy	**11.814**



I – Iodine

Atomic number	53
Physical State	solid
Density	4.93 g/cm^3
Conductivity	very poor
Melting Point	113.5°C
Color	blue-black
Reactivity	very reactive
Ionization energy	**10.451**

Xe - Xenon

Atomic number	54
Physical State	gas
Conductivity	very poor
Melting Point	**-119.9°C**
Color	colorless
Reactivity	almost none
Ionization energy	**12.13**
Electron per shell	2, 8,18,18, **8**

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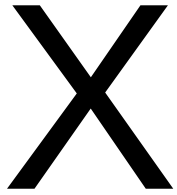
He – Helium

Atomic number	2
Physical State	gas
Conductivity	very poor
Melting Point	**-272°C**
Color	colorless
Reactivity	almost none
Ionization energy	**24.587**
Electron per shell	**2**



Ne – Neon

Atomic number	10
Conductivity	very poor
Melting Point	**-249°C**
Color	colorless
Reactivity	almost none
Ionization energy	**21.564**
Electron per shell	2, **8**

Cl – Chlorine

Atomic number	17
Physical State	gas
Density	0.00321 g/cm^3
Conductivity	very poor
Melting Point	-101°C
Color	greenish yellow
Reactivity	very reactive
Ionization energy	**12.967**

Ar – Argon

Atomic number	18
Conductivity	very poor
Melting Point	**-189.2°C**
Color	colorless
Reactivity	almost none
Ionization energy	**15.759**
Electron per shell	2, 8, **8**

Unknown #1 Atomic number ? Physical State solid Density 1.74 g/cm^3 Conductivity good Melting Point 651 °C Color silvery white **Reactivity** reactive Ionization energy **7.646** Electron per shell 2, 8, **2**	**Unknown #2** Atomic number ? Physical State gas Density 0.00170 g/cm^3 Conductivity very poor Melting Point -219.6 °C Color pale yellow Reactivity very reactive Ionization energy **17.422**	**Unknown #3** Atomic number ? Physical State solid - liquid Density 1.53 g/cm^3 Conductivity good Melting Point **39 °C** Color silvery white Reactivity very reactive Ionization energy **4.177**
Unknown #4 Atomic number ? Physical State gas Conductivity very poor Melting Point **-156.6 °C** Color colorless Reactivity almost none Ionization energy **13.999** Electron per shell 2, 8, 18, **8**	**Unknown #5** Atomic number ? Physical State solid Density 1.96 g/cm^3 Conductivity poor Melting Point **115 °C** Color yellow Reactivity reactive Ionization energy **10.36**	**Unknown #6** Atomic number ? Physical State solid Density 6.69 g/cm^3 Conductivity **semi-conductor** Melting Point **631 °C** Color bluish-white Ionization energy **8.641** Metalloid
Unknown #7 Atomic number ? Physical State solid Density 5.32 g/cm^3 Conductivity **semi-conductor** Melting Point **937 °C** Color gray Ionization energy **7.899** Metalloid	**Unknown #8** Atomic number ? Physical State gas Density 0.0898 g/cm^3 Melting Point - 259.16 °C Color colorless gas Reactivity very reactive **Period 1** Electron per shell **1**	Cut Single BOXES

CUT single boxes out

Sc – Scandium Atomic number **21** Physical State solid Density **2.98 g/cm^3** Melting Point **1541 ^{o}C** Boiling Point 2836 ^{o}C Color silvery – white Period 4	**Ti – Titanium** Atomic number **22** Physical State solid Density **4.50 g/cm^3** Melting Point **1668 ^{o}C** Color silvery grey-white Period 4	
Y - Yttrium Atomic number **39** Physical State solid Density **4.47 g/cm^3** Melting Point **1526 ^{o}C** Color silvery – white Period 5	**Zr – Zirconium** Atomic number **40** Physical State solid Density **6.52 g/cm^3** Melting Point **1855 ^{o}C** Color silvery – white Period 5	**Cut 4 boxes here**
V – Vanadium Atomic number **23** Physical State solid Density **6.0 g/cm^3** Melting Point **1910 ^{o}C** Color Blue-silver-grey-metallic	**Cr - Chromium** Atomic number **24** Physical State solid Density **7.19 g/cm^3** Melting Point **2180 ^{o}C** Color silvery metallic	
Nb – Niobium Atomic number **41** Physical State solid Density **8.57 g/cm^3** Melting Point **2477 ^{o}C** Color grey - metallic bluish-when oxidized	**Mo - Molybdenum** Atomic number **42** Physical State solid Density **10.28 g/cm^3** Melting Point **2623 ^{o}C** Color grey – metallic	**Cut 4 boxes here**

Mn – Manganese Atomic number **25** Physical State solid Density 7.21g/cm^3 Melting Point 1519 °C Color silvery metallic Period 4	**Fe – Iron** Atomic number **26** Physical State solid Density 7.8 g/cm^3 Melting Point 1538 °C Color lustrous metallic with a grayish tinge	
Tc – Technetium Atomic number **43** Physical State solid Density 11 g/cm^3 Melting Point 2157 °C Color shiny gray metal Period 5	**Ru – Ruthenium** Atomic number **44** Physical State solid Density 12.45 g/cm^3 Melting Point 2334 °C Color silvery white metallic	**Cut 4 boxes here**
Co – Cobalt Atomic number **27** Physical State solid Density 8.9 g/cm^3 Melting Point 1495 °C Color hard lustrous bluish gray metal	**Ni – Nickel** Atomic number **28** Physical State solid Density 8.908 g/cm^3 Melting Point 1455 °C Color lustrous, metallic, and silver with a gold tinge Period 4	
Rh – Rhodium Atomic number **45** Physical State solid Density 12.41 g/cm^3 Melting Point 1964 °C Color silvery white metallic	**Pd – Palladium** Atomic number **46** Physical State solid Density 12.02 g/cm^3 Melting Point 1554.9 °C Color silvery white Period 5	**Cut 4 boxes here**

Cu – Copper Atomic number **29** Physical State solid Density 8.96 g/cm^3 Melting Point 1084 ^{o}C Color red – orange metallic luster Group 11	**Zn – Zinc** Atomic number **30** Physical State solid Density 7.14 g/cm^3 Melting Point 419.5 ^{o}C Color silver - gray Group 12
Ag – Silver Atomic number **47** Physical State solid Density 10.49 g/cm^3 Melting Point 961.7 ^{o}C Color lustrous white metal Group 11	**Cd – Cadmium** Atomic number **48** Physical State solid Density 8.65 g/cm^3 Melting Point 321 ^{o}C Color silvery bluish-gray metallic Group 12

B – Boron	
Atomic number	5
Physical State	solid
Density	2.34 g/cm^3
Conductivity	poor at r.t.
Melting Point	2076 °C
Color	brown
Ionization energy	**8.298**
C – Carbon	
Atomic number	6
Physical State	solid
Density	**2.10 g/cm^3**
Conductivity	good
Melting Point	3550 °C
Color	black
Ionization energy	**11.26**
Al – Aluminum	
Atomic number	13
Physical State	solid
Density	2.7 g/cm^3
Conductivity	high
Melting Point	303 °C
Color	silvery white
Ionization energy	**5.986**
Si – Silicon	
Atomic number	14
Physical State	solid
Density	**2.33g/cm^3**
Conductivity	semi-conductor
Melting Point	1410 °C
Color	gray
Ionization energy	**8.151**
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	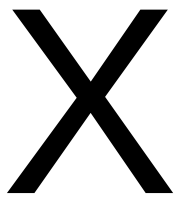

Ga – Gallium Atomic number 31 Physical State solid Density 5.904 g/cm^3 Conductivity medium Melting Point 30 °C Color silvery Ionization energy **5.999**	Cut
In – Indium Atomic number 49 Physical State solid Density 7.31 g/cm^3 Conductivity medium Melting Point 157 °C Color silvery white Ionization energy **5.786** Group 13	**Sn – Tin** Atomic number 50 Physical State solid Density 7.31 g/cm^3 Conductivity good Melting Point 232 °C Color silver Ionization energy 7.344
Ti – Thallium Atomic number 81 Physical State solid Density 11.85 g/cm^3 Conductivity good Melting Point **579 °C** Color silvery white	**Pb – Lead** Atomic number 82 Physical State solid Density 11.34 g/cm^3 Conductivity good Melting Point 327 °C Color blueish white