

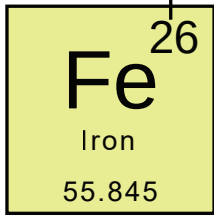
The Periodic Table of the Elements

| | | | | | | | | | | | | | | | | | | |
|----------|---------------------------------|----------------------------------|----------------------------------|-------------------------------------|----------------------------------|----------------------------------|-----------------------------------|---------------------------------|----------------------------------|------------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|---------------------------------|-----------------------------------|-----------------------------------|----------------------------------|---------------------------------|
| group 1 | | | | | | | | | | | | | | | | | 18 | |
| period 1 | 1 H Hydrogen 1.00794 | | | | | | | | | | | | | | | | | 2 He Helium 4.002602 |
| 2 | 3 Li Lithium 6.941 | 4 Be Beryllium 9.012182 | | | | | | | | | | | 5 B Boron 10.811 | 6 C Carbon 12.0107 | 7 N Nitrogen 14.0067 | 8 O Oxygen 15.9994 | 9 F Fluorine 18.998403 | 10 Ne Neon 20.1797 |
| 3 | 11 Na Sodium 22.98976 | 12 Mg Magnesium 24.3050 | | | | | | | | | | | 13 Al Aluminium 26.98153 | 14 Si Silicon 28.0855 | 15 P Phosphorus 30.97696 | 16 S Sulfur 32.065 | 17 Cl Chlorine 35.453 | 18 Ar Argon 39.948 |
| 4 | 19 K Potassium 39.0983 | 20 Ca Calcium 40.078 | 21 Sc Scandium 44.95591 | 22 Ti Titanium 47.867 | 23 V Vanadium 50.9415 | 24 Cr Chromium 51.9962 | 25 Mn Manganese 54.93804 | 26 Fe Iron 55.845 | 27 Co Cobalt 58.93319 | 28 Ni Nickel 58.6934 | 29 Cu Copper 63.546 | 30 Zn Zinc 65.38 | 31 Ga Gallium 69.723 | 32 Ge Germanium 72.64 | 33 As Arsenic 74.92160 | 34 Se Selenium 78.96 | 35 Br Bromine 79.904 | 36 Kr Krypton 83.798 |
| 5 | 37 Rb Rubidium 85.4678 | 38 Sr Strontium 87.62 | 39 Y Yttrium 88.90585 | 40 Zr Zirconium 91.224 | 41 Nb Niobium 92.90638 | 42 Mo Molybdenum 95.96 | 43 Tc Technetium (98) | 44 Ru Ruthenium 101.07 | 45 Rh Rhodium 102.9055 | 46 Pd Palladium 106.42 | 47 Ag Silver 107.8682 | 48 Cd Cadmium 112.411 | 49 In Indium 114.818 | 50 Sn Tin 118.710 | 51 Sb Antimony 121.760 | 52 Te Tellurium 127.60 | 53 I Iodine 126.9044 | 54 Xe Xenon 131.293 |
| 6 | 55 Cs Caesium 132.9054 | 56 Ba Barium 137.327 | 71 Lu Lutetium 174.9668 | 72 Hf Hafnium 178.49 | 73 Ta Tantalum 180.9478 | 74 W Tungsten 183.84 | 75 Re Rhenium 186.207 | 76 Os Osmium 190.23 | 77 Ir Iridium 192.217 | 78 Pt Platinum 195.084 | 79 Au Gold 196.9665 | 80 Hg Mercury 200.59 | 81 Tl Thallium 204.3833 | 82 Pb Lead 207.2 | 83 Bi Bismuth 208.9804 | 84 Po Polonium (210) | 85 At Astatine (210) | 86 Rn Radon (220) |
| 7 | 87 Fr Francium (223) | 88 Ra Radium (226) | 103 Lr Lawrencium (262) | 104 Rf Rutherfordium (261) | 105 Db Dubnium (262) | 106 Sg Seaborgium (266) | 107 Bh Bohrium (264) | 108 Hs Hassium (277) | 109 Mt Meitnerium (268) | 110 Ds Darmstadtium (271) | 111 Rg Roentgenium (272) | 112 Cn Copernicium (285) | 113 Nh Nihonium (284) | 114 Fl Flerovium (289) | 115 Mc Moscovium (288) | 116 Lv Livermorium (292) | 117 Ts Tennessine (294) | 118 Og Oganesson (294) |

- alkali metals
- alkaline metals
- other metals
- transition metals
- lanthanoids
- actinoids
- metalloids
- nonmetals
- halogens
- noble gases
- unknown elements
- radioactive elements have masses in parentheses

| | | | | | | | | | | | | | |
|-----------------------------------|---------------------------------|--------------------------------------|----------------------------------|---------------------------------|--------------------------------|---------------------------------|----------------------------------|---------------------------------|-----------------------------------|----------------------------------|-------------------------------|-----------------------------------|----------------------------------|
| 57 La Lanthanum 138.9054 | 58 Ce Cerium 140.116 | 59 Pr Praseodymium 140.9076 | 60 Nd Neodymium 144.242 | 61 Pm Promethium (145) | 62 Sm Samarium 150.36 | 63 Eu Europium 151.964 | 64 Gd Gadolinium 157.25 | 65 Tb Terbium 158.9253 | 66 Dy Dysprosium 162.500 | 67 Ho Holmium 164.9303 | 68 Er Erbium 167.259 | 69 Tm Thulium 168.9342 | 70 Yb Ytterbium 173.054 |
| 89 Ac Actinium (227) | 90 Th Thorium 232.0380 | 91 Pa Protactinium 231.0358 | 92 U Uranium 238.0289 | 93 Np Neptunium (237) | 94 Pu Plutonium (244) | 95 Am Americium (243) | 96 Cm Curium (247) | 97 Bk Berkelium (247) | 98 Cf Californium (251) | 99 Es Einsteinium (252) | 100 Fm Fermium (257) | 101 Md Mendelevium (258) | 102 No Nobelium (259) |

atomic number

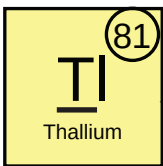
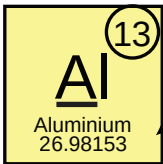
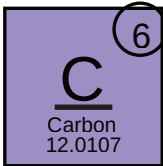


What is an atomic number?

The atomic number of an element denotes the number of protons present in the atom of the element.

Example:

6 13 81



| | | | | |
|--|---------------------------------------|--|--|--|
| 5 B Boron 10.811 | 6 C Carbon 12.0107 | 7 N Nitrogen 14.0067 | 8 O Oxygen 15.9994 | 9 F Fluorine 18.998403 |
| 13 Al Aluminium 26.98153 | 14 Si Silicon 28.0855 | 15 P Phosphorus 30.97696 | 16 S Sulfur 32.065 | 17 Cl Chlorine 35.453 |
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| 81 Tl Thallium 204.3833 | 82 Pb Lead 207.2 | 83 Bi Bismuth 208.9804 | 84 Po Polonium (210) | 85 At Astatine (210) |

Ans: CAT

*Note: If an element has two letters, use only the first letter

Solve these:

| | | | |
|-----------|------------|-----------|-----------|
| 6 | 118 | 18 | 52 |
| 3 | 99 | 13 | 84 |
| 74 | 85 | 45 | 12 |
| 39 | 76 | 32 | 79 |
| 9 | 89 | 51 | 65 |