

Element #	# of atoms	atomic mass	Element Name	Symbol	mass in kg	cumulative m
1	1	1.0079	Hydrogen	H	1.6731E-27	1.6731E-27
2	2	4.0026	Helium	He	1.3289E-26	1.4962E-26
3	4	6.941	Lithium	Li	4.6088E-26	6.105E-26
4	8	9.0122	Beryllium	Be	1.1968E-25	1.8073E-25
5	16	10.811	Boron	B	2.8714E-25	4.6787E-25
6	32	12.0107	Carbon	C	6.3801E-25	1.1059E-24
7	64	14.0067	Nitrogen	N	1.4881E-24	2.594E-24
8	128	15.9994	Oxygen	O	3.3996E-24	5.9935E-24
9	256	18.9984	Fluorine	F	8.0736E-24	1.4067E-23
10	512	20.1797	Neon	Ne	1.7151E-23	3.1218E-23
11	1024	22.9897	Sodium	Na	3.9079E-23	7.0297E-23
12	2048	24.305	Magnesium	Mg	8.2629E-23	1.5293E-22
13	4096	26.9815	Aluminum	Al	1.8346E-22	3.3638E-22
14	8192	28.0855	Silicon	Si	3.8193E-22	7.1831E-22
15	16384	30.9738	Phosphorus	P	8.4241E-22	1.5607E-21
16	32768	32.065	Sulfur	S	1.7442E-21	3.3049E-21
17	65536	35.453	Chlorine	Cl	3.8569E-21	7.1618E-21
18	131072	39.948	Argon	Ar	8.6919E-21	1.5854E-20
19	262144	39.0983	Potassium	K	1.7014E-20	3.2868E-20
20	524288	40.078	Calcium	Ca	3.4881E-20	6.7748E-20
21	1048576	44.9559	Scandium	Sc	7.8252E-20	1.46E-19
22	2097152	47.867	Titanium	Ti	1.6664E-19	3.1264E-19
23	4194304	50.9415	Vanadium	V	3.5468E-19	6.6732E-19
24	8388608	51.9961	Chromium	Cr	7.2405E-19	1.3914E-18
25	16777216	54.938	Manganese	Mn	1.53E-18	2.9214E-18
26	33554432	55.845	Iron	Fe	3.1106E-18	6.032E-18
27	67108864	58.9332	Cobalt	Co	6.5652E-18	1.2597E-17
28	134217728	58.6934	Nickel	Ni	1.3077E-17	2.5674E-17
29	268435456	63.546	Copper	Cu	2.8316E-17	5.399E-17
30	536870912	65.39	Zinc	Zn	5.8276E-17	1.1227E-16
31	1073741824	69.723	Gallium	Ga	1.2428E-16	2.3654E-16
32	2147483648	72.64	Germanium	Ge	2.5895E-16	4.9549E-16
33	4294967296	74.9216	Arsenic	As	5.3416E-16	1.0297E-15
34	8589934592	78.96	Selenium	Se	1.1259E-15	2.1556E-15
35	1.718E+10	79.904	Bromine	Br	2.2787E-15	4.4343E-15
36	3.436E+10	83.8	Krypton	Kr	4.7797E-15	9.214E-15
37	6.8719E+10	85.4678	Rubidium	Rb	9.7497E-15	1.8964E-14
38	1.3744E+11	87.62	Strontium	Sr	1.999E-14	3.8954E-14
39	2.7488E+11	88.9059	Yttrium	Y	4.0568E-14	7.9522E-14
40	5.4976E+11	91.224	Zirconium	Zr	8.3251E-14	1.6277E-13
41	1.0995E+12	92.9064	Niobium	Nb	1.6957E-13	3.3234E-13
42	2.199E+12	95.94	Molybdenum	Mo	3.5022E-13	6.8256E-13
43	4.398E+12	98	Technetium	Tc	7.1547E-13	1.398E-12
44	8.7961E+12	101.07	Ruthenium	Ru	1.4758E-12	2.8738E-12
45	1.7592E+13	102.9055	Rhodium	Rh	3.0052E-12	5.879E-12
46	3.5184E+13	106.42	Palladium	Pd	6.2156E-12	1.2095E-11
47	7.0369E+13	107.8682	Silver	Ag	1.26E-11	2.4695E-11
48	1.4074E+14	112.411	Cadmium	Cd	2.6262E-11	5.0957E-11
49	2.8147E+14	114.818	Indium	In	5.3649E-11	1.0461E-10
50	5.6295E+14	118.71	Tin	Sn	1.1093E-10	2.1554E-10
51	1.1259E+15	121.76	Antimony	Sb	2.2757E-10	4.4311E-10
52	2.2518E+15	127.6	Tellurium	Te	4.7697E-10	9.2008E-10

53	4.5036E+15	126.9045 Iodine	I	9.4873E-10	1.8688E-09
54	9.0072E+15	131.293 Xenon	Xe	1.9631E-09	3.8319E-09
55	1.8014E+16	132.9055 Cesium	Cs	3.9744E-09	7.8063E-09
56	3.6029E+16	137.327 Barium	Ba	8.2132E-09	1.602E-08
57	7.2058E+16	138.9055 Lanthanum	La	1.6615E-08	3.2635E-08
58	1.4412E+17	140.116 Cerium	Ce	3.352E-08	6.6155E-08
59	2.8823E+17	140.9077 Praseodymium	Pr	6.7419E-08	1.3357E-07
60	5.7646E+17	144.24 Neodymium	Nd	1.3803E-07	2.716E-07
61	1.1529E+18	145 Promethium	Pm	2.7751E-07	5.4911E-07
62	2.3058E+18	150.36 Samarium	Sm	5.7553E-07	1.1246E-06
63	4.6117E+18	151.964 Europium	Eu	1.1633E-06	2.288E-06
64	9.2234E+18	157.25 Gadolinium	Gd	2.4076E-06	4.6956E-06
65	1.8447E+19	158.9253 Terbium	Tb	4.8665E-06	9.5622E-06
66	3.6893E+19	162.5 Dysprosium	Dy	9.952E-06	1.9514E-05
67	7.3787E+19	164.9303 Holmium	Ho	2.0202E-05	3.9716E-05
68	1.4757E+20	167.259 Erbium	Er	4.0974E-05	8.069E-05
69	2.9515E+20	168.9342 Thulium	Tm	8.2769E-05	0.00016346
70	5.903E+20	173.04 Ytterbium	Yb	0.00016956	0.00033302
71	1.1806E+21	174.967 Lutetium	Lu	0.0003429	0.00067592
72	2.3612E+21	178.49 Hafnium	Hf	0.0006996	0.00137552
73	4.7224E+21	180.9479 Tantalum	Ta	0.00141847	0.00279399
74	9.4447E+21	183.84 Tungsten	W	0.00288229	0.00567628
75	1.8889E+22	186.207 Rhenium	Re	0.0058388	0.01151509
76	3.7779E+22	190.23 Osmium	Os	0.0119299	0.02344498
77	7.5558E+22	192.217 Iridium	Ir	0.02410902	0.047554
78	1.5112E+23	195.078 Platinum	Pt	0.04893573	0.09648973
79	3.0223E+23	196.9665 Gold	Au	0.09881892	0.19530866
80	6.0446E+23	200.59 Mercury	Hg	0.2012737	0.39658235
81	1.2089E+24	204.3833 Thallium	Tl	0.41015985	0.8067422
82	2.4179E+24	207.2 Lead	Pb	0.83162491	1.63836711
83	4.8357E+24	208.9804 Bismuth	Bi	1.67754156	3.31590867
84	9.6714E+24	209 Polonium	Po	3.35539779	6.67130646
85	1.9343E+25	210 Astatine	At	6.74290465	13.4142111
86	3.8686E+25	222 Radon	Rn	14.256427	27.6706381
87	7.7371E+25	223 Francium	Fr	28.6412902	56.3119283
88	1.5474E+26	226 Radium	Ra	58.0531981	114.365126
89	3.0949E+26	227 Actinium	Ac	116.620141	230.985268
90	6.1897E+26	232.0381 Thorium	Th	238.416881	469.402149
91	1.2379E+27	231.0359 Protactinium	Pa	474.774261	944.17641
92	2.4759E+27	238.0289 Uranium	U	978.289479	1922.46589