

Key

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Subatomic Particles of Neutral and Charged Atoms Practice Worksheet

Atomic symbol	Atomic number	Mass number	Average Atomic mass	Number of protons	Number of electrons	Number of neutrons	Standard atomic notation	Number of electrons in ion	Charge of common ion	Standard atomic notation of ion
Al	13	27	27	13	13	14	$^{27}_{13}\text{Al}$	10	3+	$^{27}_{13}\text{Al}^{3+}$
Be	4	9	9.0	4	4	5	^9_4Be	2	2+	$^9_4\text{Be}^{2+}$
B	5	11	10.8	5	5	6	$^{11}_5\text{B}$	not applicable	not applicable	not applicable
Ca	20	40	40.1	20	20	20	$^{40}_{20}\text{Ca}$	18	2+	$^{40}_{20}\text{Ca}^{2+}$
C	6	12	12.0	12	12	6	$^{12}_6\text{C}$	not applicable	not applicable	not applicable
Cl	17	35	35.5	17	17	18	$^{35}_{17}\text{Cl}$	18	1-	$^{35}_{17}\text{Cl}^-$
F	9	19	19.0	9	9	10	$^{19}_9\text{F}$	10	1-	$^{19}_9\text{F}^-$
He	2	4	4.0	2	2	2	^4_2He	not applicable	not applicable	not applicable
H	1	1	1.0	1	1	0	^1_1H	0	1+	$^1_1\text{H}^+$
Li	3	7	6.9	3	3	4	^7_3Li	2	1+	$^7_3\text{Li}^+$
Ac	89	225	227	89	89		$^{225}_{89}\text{Ac}$	86	3+	$^{225}_{89}\text{Ac}^{3+}$
Ne	10	20	20.2	10	10	10	$^{20}_{10}\text{Ne}$	not applicable	not applicable	not applicable
N	7	14	14.0	7	7	7	$^{14}_7\text{N}$	10	3-	$^{14}_7\text{N}^{3-}$
O	8	16	16.0	8	8	8	$^{16}_8\text{O}$	10	2-	$^{16}_8\text{O}^{2-}$
P	15	31	31.0	15	15	16	$^{31}_{15}\text{P}$	18	3-	$^{31}_{15}\text{P}^{3-}$
K	19	39	39.1	19	19	20	$^{39}_{19}\text{K}$	19	1+	$^{39}_{19}\text{K}^+$
Ne	10	22	20.2	10	10	12	$^{22}_{10}\text{Ne}$	not applicable	not applicable	not applicable
S	16	32	32.1	16	16	16	$^{32}_{16}\text{S}$	18	2-	$^{32}_{16}\text{S}^{2-}$
Fm	100	259	257	100	100	159	$^{259}_{100}\text{Fm}$	97	3+	$^{259}_{100}\text{Fm}^{3+}$
V	23	51	50.9	23	23	28	$^{51}_{23}\text{V}$	18/19	5+/4+	$^{51}_{23}\text{V}^{5+}/^{51}_{23}\text{V}^{4+}$
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Tm	69	170	168.9	69	69	101	$^{170}_{69}\text{Tm}$	66/67	3+/2+	$^{170}_{69}\text{Tm}^{3+}$
Mg	12	24	24.3	12	12	12	$^{24}_{12}\text{Mg}$	10	2+	$^{24}_{12}\text{Mg}^{2+}$
Fe	26	56	55.8	26	26	30	$^{56}_{26}\text{Fe}$	23/24	3+/2+	$^{56}_{26}\text{Fe}^{3+}/^{56}_{26}\text{Fe}^{2+}$

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$^{170}_{69}\text{Tm}^{2+}$
 $^{56}_{26}\text{Fe}^{2+}$