

Atomic Structure - ANSWER

Practice - Complete the following table

<u>Sym</u>		Atomic Number	Mass Number	Number of Protons	Number of Electrons	Number of Neutrons
${}_{20}^{40}\text{Ca}$	Calcium-40	20	40	20	20	20
${}_{6}^{13}\text{C}$	Carbon-13	6	13	6	12	7
${}_{13}^{27}\text{Al}$	Aluminum-27 ⁺³	13	27	13	10	14

Handwritten notes:
 - A bracket above the table spans from the Atomic Number column to the Number of Electrons column, with the label $e = p - \text{charge}$ above it.
 - Another bracket above the table spans from the Mass Number column to the Number of Neutrons column, with the label $\text{mass} - p$ above it.
 - An arrow points from the circled mass number '40' in the Calcium-40 entry to the '40' in the top-left corner of the table.
 - An arrow points from the circled mass number '40' in the Calcium-40 entry to the '40' in the Mass Number column of the same row.

Atomic Structures of Ions

p-charge

Ion	p^+	e^-
${}_{17}\text{Cl}^{-1}$	17	18
${}_{19}\text{K}^{+1}$	19	18
${}_{16}\text{S}^{-2}$	16	18
${}_{38}\text{Sr}^{+2}$	38	36