

Chem 2202 Midterm Review Questions

Q1. Complete table as indicated.

Element	isotope symbol	Atomic #	Mass #	#p	#e	#n
Carbon-12	$^{12}_6\text{C}$	6	12	6	6	6
Magnesium-24	$^{24}_{12}\text{Mg}$	12	24	12	12	12
Magnesium-26	$^{26}_{12}\text{Mg}^{2+}$	12	26	12	10	14
Chlorine - 35	$^{35}_{17}\text{Cl}$	17	35	17	17	18
Chloride - 37	$^{37}_{17}\text{Cl}^{-}$	17	37	17	18	20
calcium - 40	$^{40}_{20}\text{Ca}^{2+}$	20	40	20	18	20
phosphide-31	$^{31}_{15}\text{P}^{3-}$	15	31	15	18	16
sulfide - 34	$^{34}_{16}\text{S}^{2-}$	16	34	16	18	18
Aluminium-27	$^{27}_{13}\text{Al}^{3+}$	13	27	13	10	14

2. Given

Isotope	Atomic Mass ( $\mu$ )	% abundance
potassium - 39	38.96	93.3
potassium - 41	40.96	??

- What is the percent abundance of potassium - 41?
- Calculate the average atomic mass of potassium?