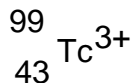


Question 1 (2 points) Given the following isotope/ion of technetium provide the following:



number of electrons 40
number of protons 43
number of neutrons 56

Question 2(3 points): The mass spectral analysis of an iron sample gives the following data Calculate the average molar mass of iron (Fe) with **4 significant figures** 55.84 g/mol

Isotope	isotopic molar mass	percent abundance
${}^{54}\text{Fe}$	53.94	5.82%
${}^{56}\text{Fe}$	55.935	91.66%
${}^{57}\text{Fe}$	56.935	2.52%