Natural Abundance Worksheet

Isotope- each of two or more forms of the same element that contain equal numbers of *protons* but different numbers of *neutrons* in their nucleus, and hence differ in relative atomic mass but not in chemical properties; in particular, a radioactive form of an element

1. Determine the mass of Chromium from the isotopes and their natural abundances listed below.
   Cr-50 4.345% 49.9460 amu

   Cr-52 83.79% 51.9405 amu

   Cr-53 9.50%   52.9407 amu

   Cr-54 2.365% 53.9389 amu

2. Determine the mass of Strontium given the following isotopes and their natural abundances

   Sr-84 0.56% 83.9134 amu

   Sr-86 9.86% 85.9093 amu

   Sr-87 7.00% 86.9089 amu

   Sr-88 82.85% 87.9056 amu

3. Rhenium has two naturally occurring isotopes: Re-185 with a natural abundance of 37.40% and Re-187 with a natural abundance of 62.20%. The sum of the masses of the two isotopes is 371.9087 amu. Find the masses of the individual isotopes.