Supplementary problem:

The lattice constant (length of the conventional cubic cell) of a monatomic bcc crystal is $a = 4.28$ Å. Calculate the diffraction angles $2\theta$ of the first four diffraction peaks (the four diffraction peaks with the lowest $2\theta$ values) from its powder specimen, using monochromatic x-ray with a wavelength $\lambda = 1.5$ Å. (Hint: powder specimen implies that all crystal orientations are possible in the specimen.)