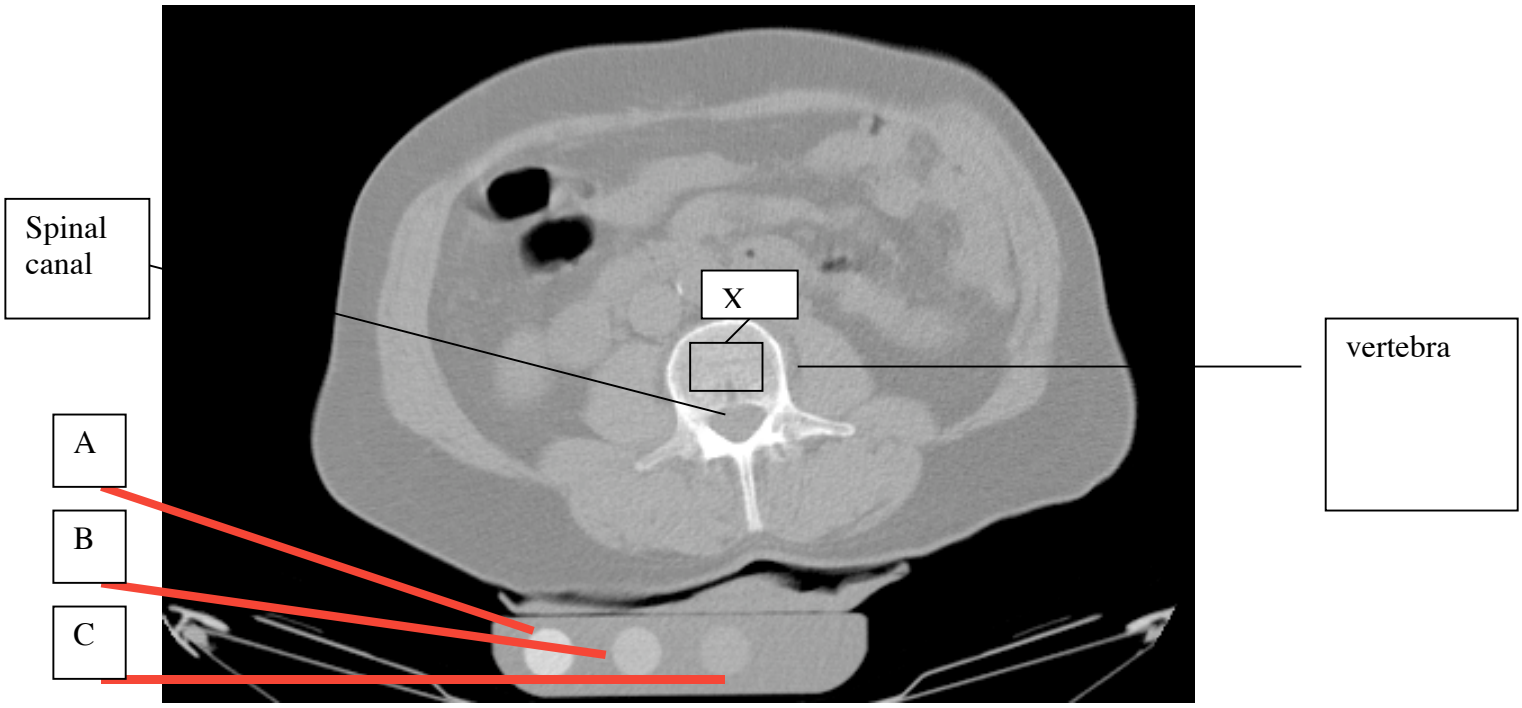
HOMEWORK: CT ANALYSIS



This image is provided as a 16 bit TIF image.

1) Use thresholding to identify and quantify the size of the vertebra.
2) Elaborate on the problems associated with the estimation of the vertebra size.
3) Compute the density of the vertebra in terms of the density of
    a. Phantom A
    b. Phantom B
    c. Phantom C

Plot the intensities of A,B, C, and mark on the plot the density of region X and over the whole vertebra, excluding the spinal canal.

Given that A = 200 mg/cc of calcium hydroxyapatite (HA), B= 100 and C= 50. compute the density of X and the vertebra in units of mg/cc of HA