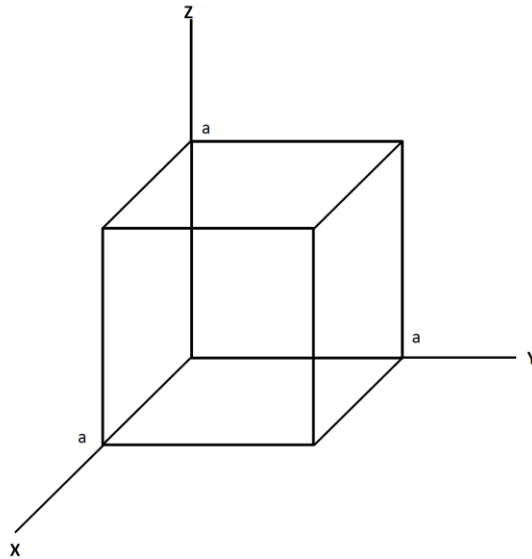1. Linear Density
   a. Sketch the atoms on the (110) plane for a Face Centered Cubic (FCC) system.
   b. Calculate the linear density. Assume a lattice constant of 0.405 nm.

2. Planar Density
   a. Calculate the planar density of the (110) plane (from above) for the FCC system with a lattice constant of 0.405 nm.
   b. Calculate the planar density of the (111) plane for the same system. Sketch the plane.
   c. Which plane has a higher density? Why?