Worksheet #14

(1) Sketch the points (0,5,2), (4,0,-1), and (1,-1,2) on a single set of coordinate axes.

(2) Find the equation of a sphere with center (2, -6, 4) and radius 5. Describe its intersection with each of the coordinate planes.

(3) Show that $x^2 + y^2 + z^2 + 8x - 6y + 2z + 17 = 0$ represents a sphere. Find its center and radius.