5.) Consider the equation \( z = 9 - x^2 - y^2 \).
   
a.) (3 pts.) Determine the \( x \), \( y \), and \( z \)-intercepts for this surface.

b.) (3 pts.) Determine and sketch the \( xy \), \( xz \), and \( yz \)-traces for this surface.

   ![Diagram of coordinate axes]

   ![Diagram of xy-trace]

   ![Diagram of xz-trace]

   ![Diagram of yz-trace]

c.) (3 pts.) Determine and sketch the level curves for this surface using the following values for \( z \): 8, 5, -7.

   ![Diagram of level curves]

c.) (3 pts.) Sketch this surface in 3D-Space.

   ![3D-sketch of surface]