The manufacturer of an aluminum lamp shade is trying to determine the amount of paint necessary to cover one of their new designs. Use the P-G formula to determine the surface area of the lamp shade shown below.

Determine the coordinates \((\bar{x}, \bar{y}, \bar{z})\) of the center of gravity for the homogenous object shown below. Note: The origin of the xyz system is in the back corner of the object, point A.

For the area shown below,

a. Determine the moment of inertia about the given x-axis
b. Determine the moment of inertia about the given y-axis