(1) Show that the lines \( x = y = z \) and \( x + 1 = y^2 = \frac{z}{3} \) are skew lines.

(2) Find an equation for the plane consisting of all points that are equidistant from the points \((1, 1, 0)\) and \((0, 1, 1)\).

(3) Identify and sketch the surfaces \( x^2 + 2z^2 - 6x - y + 10 = 0 \). Also, find the traces in the plane \( y = k \) and \( xy - \text{plane} \).