(1) Let \( f(x, y) = \ln(x + y - 1) \).

(a) Find and sketch the domain of \( f \).

(b) Find the range of \( f \).

(2) Find the level surfaces of \( f(x, y, z) = y^2 + z^2 - x^2 \). Also, sketch the surfaces.

(3) Find the traces in the planes \( x = k, y = k, \) and \( z = k \) of the surface \( z^2 = 16x^2 + 16y^2 \).