(1) Find the local maximum and minimum values and saddle point(s) of the function

\[ f(x, y) = (1 + xy)(x + y) \]

(2) Use Lagrange multiplier to find maximum and minimum value of the function

\[ f(x, y) = 2x + 6y + 10z \] subject to constraint \[ x^2 + y^2 + z^2 = 35. \]