

Find the equation of the tangent plane and the normal line to the surface given by $f(x, y) = x^3 + 3x^2y + y^3$ at the point for which $x = 1$ and $y = 2$.

Find all the critical points of the function given by $f(x, y) = x^3 + 3x^2 + y^2 - 9x + 8y$.