

- 1) Find the equation of the tangent plane to the graph of the function  $f(x, y) = (x^3 + \sin y) / (y^2 + 1)$  at the point  $(2, 0, 8)$ .
- 2) Let  $g(x, y, z) = x^2 - y^3 + z^4$ . Let  $L$  be the level surface of  $g$  containing the point  $P(3, 2, 1)$ . Find the equation of the tangent plane to the surface  $L$  at the point  $P$ .