$\begin{aligned} f(x,y) &= (754 - x^2 - 9y^4)^{1/2} \implies f_x(x,y) = -2x \left[ 2(754 - x^2 - 9y^4) \right]^{-1/2} \\ \text{and } f_y(x,y) &= -36y \left[ 2(754 - x^2 - 9y^4) \right]^{-1/2} \implies f_x(9,0) = -\frac{9}{\sqrt{673}}, f_y(9,0) = \\ 0. \text{ The graph of } f \text{ is the upper half of the surface} \\ z^2 + x^2 + 9y^4 &= 754 \text{ and the plane } y = 0 \text{ intersects the graph in the curve} \\ x^2 + z^2 &= 754, z \ge 0 \text{ and the slope of the tangent line } T_1 \text{ to this curve at} \\ (9,0,\sqrt{673}) \text{ is } f_x(9,0) &= -\frac{9}{\sqrt{673}}. \text{ Similarly the plane } x = 9 \text{ intersects the graph in the curve } \\ T_2 \text{ to this curve at } (9,0,\sqrt{673}) \text{ is } f_y(9,0) = 0. \end{aligned}$ 



 $\mathbf{A} = (9, 0, \sqrt{673}), X = (\sqrt[2]{754}, 0, 0), Y = (0, \sqrt[4]{754/9}, 0), Z = (0, 0, \sqrt{754}).$