



$$f(x, y) = \frac{x^2}{9} + \frac{y^2}{4}$$

$$x_2 = 0.450109$$

$$y_2 = 0.112527$$

$$\nabla f(\cdot) = (0.100024, \\ 0.056264)$$

$$\alpha_2 = 3.460354$$

$$\sqrt{x_2^2 + y_2^2} = 0.463962$$