



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

$$x_6 = 0.005699$$

$$y_6 = 0.001425$$

$$\nabla f(\cdot) = (0.001267, \\ 0.000712)$$

$$\alpha_6 = 3.460354$$

$$\sqrt{x_6^2 + y_6^2} = 0.005875$$