



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

$$x_5 = 0.499314$$

$$y_5 = -0.027344$$

$$\nabla f(\cdot) = (0.110959, \\ -0.013672)$$

$$\alpha_5 = 3/6$$

$$\sqrt{x_5^2 + y_5^2} = 0.500062$$