



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

$$x_6 = 0.443835$$

$$y_6 = -0.020508$$

$$\nabla f(\cdot) = (0.098630, \\ -0.010254)$$

$$\alpha_6 = 3/7$$

$$\sqrt{x_6^2 + y_6^2} = 0.444308$$