

Найдите наименьшее значение функции $y = \log_3(x^2 - 6x + 10) + 2$.

$$y = \log_3(x^2 - 6x + 10) + 2$$

$$y = x^2 - 6x + 10 = x^2 - 6x + 9 + 1 = (x - 3)^2 + 1 \quad x_0 = 3 \quad y_0 = 1$$

$$y = \log_3((x - 3)^2 + 1) + 2 = \log_3(1) + 2 = 2$$