$$f(x) = 2x_1^2 + x_1x_2 + x_2^2 - 5x_1 - 3x_2 + 4$$

$$x_1 \qquad (1,1) \qquad g_1(x) = x_1 + x_2 - 1 \le 0$$

$$(1, \sqrt{2} - 1)^T$$

$$(1, -\sqrt{2} - 1)^T$$

$$g_1 = 0$$