

$$8. f(x, y, z) = (x-2)^2 + (y+1)^2 + (z-5)^2$$

$$f_x = 2(x-2)^1 \cdot 1 \quad f_y = 2(y+1)^1 \cdot 1 \quad f_z = 2(z-5)^1 \cdot 1$$

$$2x-4=0$$

$$2y+2=0$$

$$2z-10=0$$

$$2x=4$$

$$2y=-2$$

$$2z=10$$

$$x=2$$

$$y=-1$$

$$z=5$$

REL MIN $(2, -1, 5, f(2, -1, 5))$

REL MIN $(2, -1, 5, 0)$