

$$1. \quad z^2 = x^2 + y^2$$

$$\begin{cases} x = \rho \cos(\theta) \sin(\phi) & \rho \geq 0 \\ y = \rho \sin(\theta) \sin(\phi) & \theta \in [0, 2\pi] \\ z = \rho \cos(\phi) & \phi = \frac{\pi}{4} \end{cases}$$

union

$$\begin{cases} x = \rho \cos(\theta) \sin(\phi) & \rho \geq 0 \\ y = \rho \sin(\theta) \sin(\phi) & \theta \in [0, 2\pi] \\ z = \rho \cos(\phi) & \phi = \frac{3\pi}{4} \end{cases}$$

$$2. \quad x^2 + x^2 = 9$$

$$\begin{cases} x = \rho \cos(\theta) \sin(\phi) & \rho = \frac{3}{\sin(\phi)} \\ y = \rho \sin(\theta) \sin(\phi) & \theta \in [0, 2\pi] \\ z = \rho \cos(\phi) & \phi \in [0, \pi] \end{cases}$$

$$3. \quad x^2 - 2x + y^2 + z^2 = 0$$

$$(x - 1)^2 + y^2 + z^2 = 1$$

esfere centrada en el (1,0,0)

$$\begin{cases} x = 1 + \rho \cos(\theta) \sin(\phi) & \rho = 1 \\ y = \rho \sin(\theta) \sin(\phi) & \theta \in [0, 2\pi] \\ z = \rho \cos(\phi) & \phi = \frac{\pi}{4} \end{cases}$$