1. Match the surfaces given in spherical coordinate descriptions:

- \( \rho = \sin(\phi) \)
- \( \rho = \cos^{2}(\phi) \)
- \( 1 = \sin(\phi) \)
- \( 1 = \rho \sin(\phi) \)
- \( 1 = \sin(\rho) \)
- \( 1 = \cos(\theta) \)
1. What is the point \((-1, 1, 1)\) in spherical coordinates?

2. What is the point \((0, -3, -3)\) in spherical coordinates?

3. What point does \((\rho, \theta, \phi) = (3, \pi, \pi/4)\) represent?

4. Describe the surface \(\rho = \cos(\theta) \sin(\phi)\).

5. Describe the surface \(\rho = \cos(\phi)\).