It doesn't make sense for Circle to inherit from Cylinder because Cylinder has a properties and functionalities such as volume and calculate volume that Circle doesn't have which means that Circle is not a Cylinder. Another potential problem that can occur is that if Circles overrides equals method based on it's radius and Cylinder overrides equals method based on it's height and radius, it can lead into asymmetric equality. Therefore, it doesn't make sense for Circle to inherit Cylinder.