

4.

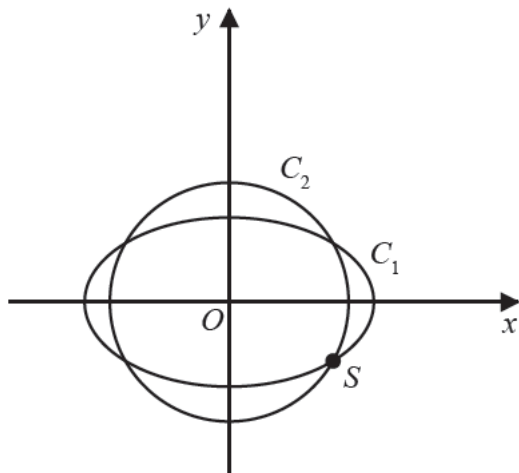


Figure 2

The curve C_1 with parametric equations

$$x = 10 \cos t, \quad y = 4\sqrt{2} \sin t, \quad 0 \leq t < 2\pi$$

meets the circle C_2 with equation

$$x^2 + y^2 = 66$$

at four distinct points as shown in Figure 2.

Given that one of these points, S , lies in the 4th quadrant, find the Cartesian coordinates of S .

(6)