

'Separated Satellites'

$$c_2: \left(\frac{x}{10}\right)^2 = \cos^2 t, \left(\frac{y}{4\sqrt{2}}\right)^2 = \sin^2 t \quad (1)$$

$$\frac{x^2}{100} + \frac{y^2}{32} = 1 (= \sin^2 t + \cos^2 t) \quad (1)$$

$$y^2 = 32 - \frac{8x^2}{25} \quad (1)$$

$$C_1: (x^2 + 4x\sqrt{17} + 68) + \left(32 - \frac{8x^2}{25}\right) = 66 \quad (1)$$

$$\frac{17x^2}{25} + 4x\sqrt{17} + 34 = 0 \quad (1)$$

$$x = \frac{-4\sqrt{17} + \sqrt{272\frac{2312}{25}}}{\frac{34}{2x}} \quad (1)$$

$$x = \frac{10}{34}\sqrt{1122} - \frac{50}{17}\sqrt{17} \quad (1)$$