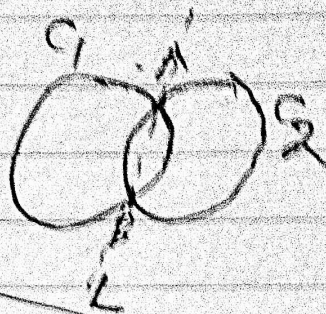


Formula/Concepts

$$S_1 \text{ or } C_1: x^2 + y^2 + 2g_1x + 2f_1y + c_1 = 0$$

$$S_2 \text{ or } C_2: x^2 + y^2 + 2g_2x + 2f_2y + c_2 = 0$$



If C_1, C_2 orthogonal



$$2g_1g_2 + 2f_1f_2 = c_1 + c_2$$

Eqⁿ of radical axis / common chord / common tangent is

$$L: S_1 - S_2 = 0$$

Eqⁿ of a circle passing through point of intersections of C_1, C_2 is

$$C_3: S_1 + \lambda(L) = 0$$

or

$$S_1 + \lambda(S_1 - S_2) = 0$$