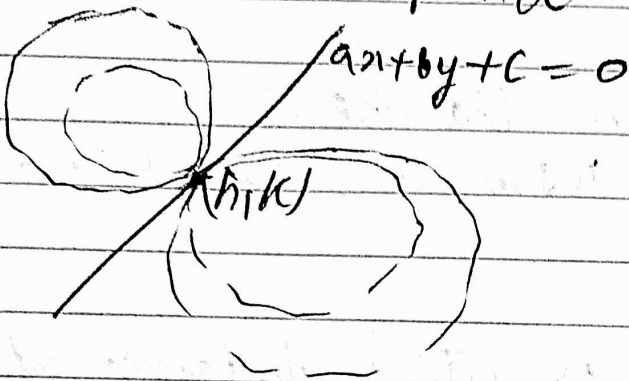


Point Circle Trick.



The family of circles touching the line $L: ax + by + c = 0$ at point (h, k) can be given as.

Linear combination of a point circle & line. i.e.

$$S + \lambda L = 0$$

$$\boxed{(x-h)^2 + (y-k)^2 + \lambda(ax+by+c) = 0}$$

All these circles touch line L and at point (h, k) .