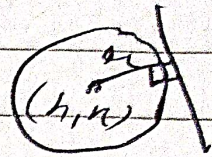


## NOTES.

(i) Lr dist of  $(h, k)$  from the line  
 $(y - k) = m(x - h) \pm r\sqrt{m^2 + 1}$  ;  $r > 0$   
 is  $r$ .

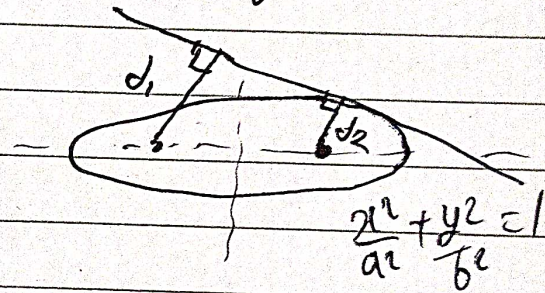
i.e.

Centre of a circle is at a distance of  $r$  from every tangent



(ii) Product of distances of foci of ellipse from a tangent is  $b^2$ .

$$d_1 d_2 = b^2$$



(iii) Product of distances from any point on hyperbola (s)  $\frac{x^2}{a^2} - \frac{y^2}{b^2} = \pm 1$  to the asymptotes

$\frac{x}{a} = \frac{y}{b}$  &  $\frac{x}{a} = -\frac{y}{b}$  is constant and is

Equal to  $\frac{a^2 b^2}{a^2 + b^2}$

$$d_1 d_2 = \frac{a^2 b^2}{a^2 + b^2}$$

