

Q2 If Lr distance of  $\frac{x}{a} + \frac{y}{b} = 1$  from origin is P. Then prove that  $\frac{1}{a^2} + \frac{1}{b^2} = \frac{1}{p^2}$

Soln Lr dist from  $(0,0) = \frac{1}{\sqrt{\frac{1}{a^2} + \frac{1}{b^2}}} = p$

$\Rightarrow \frac{1}{a^2} + \frac{1}{b^2} = \frac{1}{p^2}$  H.P.

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