7.4.2

AI25BTECH11035 - SUJAL RAJANI

QUESTION if **A** and **B** are points in the plane such that $\dfrac{PA}{PB} = K$(constant) for all **P** on a given circle , then the value of K cannot be equal to .

SOLUTION

K≠ 1,

IF K=1 then the locus of the position vector **P** is the line which bisect the join of two position vector **A** and **B** .

in other cases we always got a Apollonius circle where the value of k ≠1 .

for plotting purpose we are taking

$$\mathbf{A} = \begin{pmatrix} 0 \\ 0 \end{pmatrix}, \mathbf{B} = \begin{pmatrix} 2 \\ 0 \end{pmatrix}$$

. the line is :

$$\begin{pmatrix} 1 & 0 \end{pmatrix} \mathbf{x} = 1.$$

../figs/img.png