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1-1.5-1

EE24BTECH11060 - Sruthi Bijili

Question:
The centre of the circle whose end points of the diameter are $(-6, 3)$ and $(6, 4)$ is

(10, 2020)

solution:

Variable	Description	formula
$\mathbf{A}\,(-6, 3)$	One end of the Diameter	–
$\mathbf{B}\,(6, 4)$	other end of the Diameter	–
$\mathbf{C}$	center of the circle	–
k	ratio in which $\mathbf{c}$ divides the diameter AB	$\frac{\mathbf{B}+k\mathbf{A}}{k+1}$

TABLE 0: Variables Used

$$k = 1$$
$$\mathbf{C} = \frac{\mathbf{A} + \mathbf{B}}{2}$$
$$\mathbf{C} = \frac{\begin{pmatrix}-6\\3\end{pmatrix} + \begin{pmatrix}6\\4\end{pmatrix}}{2}$$
$$\mathbf{C} = \begin{pmatrix}0\\\frac{7}{2}\end{pmatrix}$$

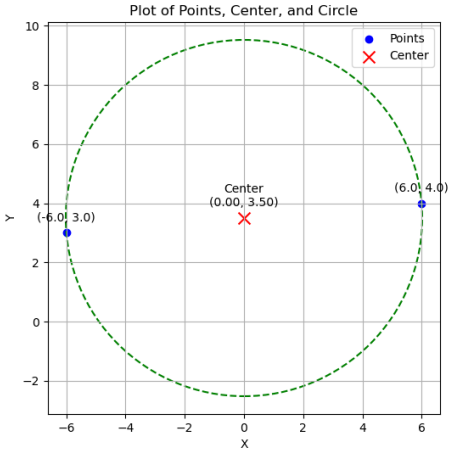

Fig. 0.1: circle with diameter AB