

Conic Section: Ellipse - Class XI

Related Questions with Solutions

Questions

Question: 01

An ellipse having foci at (3, 3) and (-4, 4) and passing through the origin has eccentricity equal to

- A. $\frac{3}{7}$
- B. $\frac{2}{7}$
- C. $\frac{5}{7}$
- D. $\frac{3}{5}$

Solutions

Solution: 01

Ellipse passing through O[0, 0] and having foci P[3, 3] and Q[-4, 4], then

$$\begin{aligned} e &= \frac{PQ}{OP + OQ} \\ &= \frac{\sqrt{50}}{3\sqrt{2} + 4\sqrt{2}} \\ &= \frac{5}{7} \end{aligned}$$

Correct Options

Answer:01

Correct Options: C