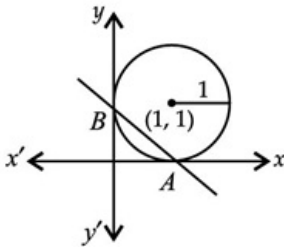## Related Questions with Solutions

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Questions

Quetion: 01

If the curve $x^2 + y^2 - 2x - 2y + 1 = 0$ intersects or touches the co-ordinate axes at A and B, then equation of straight line joining A and B is

A. $x + y = \sqrt{2}$

B. $x + y = 1$

C. $x - y = 1$

D. $x - y = \sqrt{2}$

Solutions

Solution: 01

Given curve is $x^2 + y^2 - 2x - 2y + 1 = 0$

$\Rightarrow \quad (x - 1)^2 + (y - 1)^2 = 1^2$

Above equation is the equation of circle, centre at [1, 1] and radius 1.

$\therefore$ Coordinates of A and B are $(1, 0)$ and $(0, 1)$ respectively.

$\therefore$ Equation of AB is $y - 0 = \dfrac{1 - 0}{0 - 1}(x - 1)$

$\Rightarrow -y = x - 1 \Rightarrow x + y = 1$

Correct Options

Answer:01
Correct Options: B