

Polar Coordinates

"Convert from Polar $\rightarrow$ Rectangular Coordinates"

Convert the rectangular coordinate to polar form (r, θ) .

$$(x, y) = (3, 3\sqrt{3})$$

DRAG-AND-DROP PIECES

3 $3\sqrt{3}$ $\sqrt{3}$ 6 $\pi/3$
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Step 1: Write formulas

- $r = \sqrt{x^2 + y^2}$
- $\theta = \tan^{-1} \left(\frac{y}{x} \right)$

Step 2: Substitute values

- $r = \sqrt{\text{---}^2 + \text{---}^2}$
- $\theta = \tan^{-1} \left(\frac{\text{---}}{\text{---}} \right)$

Step 3: Evaluate

- $r = \text{---}$
- $\theta = \text{---}$

Final Answer:

$$(r, \theta) = (\text{---}, \text{---})$$