Answer on Question #77025 – Math – Calculus

Question

Find the rectangular coordinates of P if the polar coordinates are (-2,120°).

Solution

120° has a reference angle of 30° in Quadrant II.

The negative sign on the radius (-2) reflects the angle into Quadrant IV.

An angle of (−30°), that is a 30° reference angle in Quadrant IV with a hypotenuse (the radius) of 2 has (x,y) components (1,-$\sqrt{3}$).

Answer: Rectangular co-ordinates = (1,-$\sqrt{3}$).