# Answer on Question #77026 – Math – Calculus

## Question

Convert the following rectangular equation to polar form: 3x+4y=2 .

## Solution

Here, rectangular equation:

$$3x+4y=2 \quad \text{.....(1)}$$

Put , $x = r\cos\theta$ and $y = r\sin\theta$ in equation (1) we get,

$$3\, r\cos\theta + 4\, r\sin\theta = 2$$

$$\text{Or, } r\,(3\cos\theta + 4\sin\theta) = 2$$

$$\text{Or, } r = \frac{2}{(3\cos\theta + 4\sin\theta)}$$

**Answer:** Polar form is $r = \frac{2}{(3\cos\theta + 4\sin\theta)}$

**Answer provided by https://www.AssignmentExpert.com**