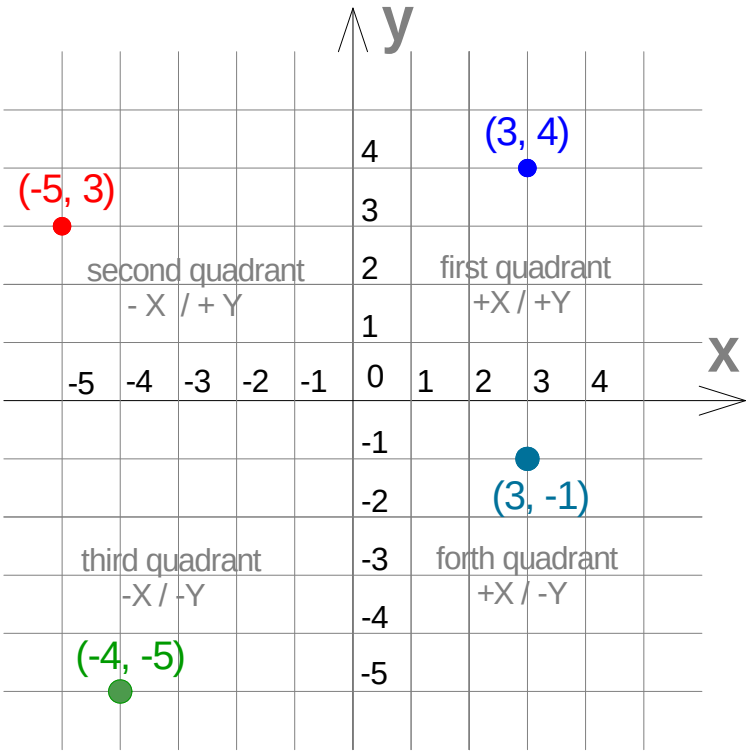
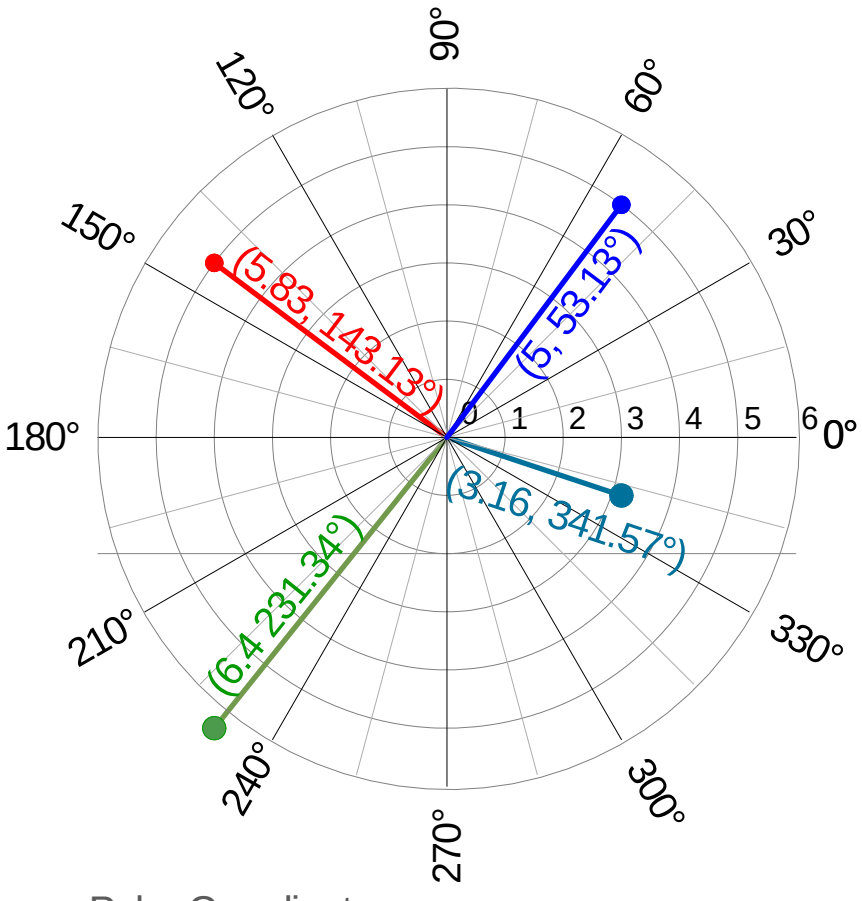
Rectangular & Polar Coordinates

Rectangular coordinates and polar coordinates are two different ways of using two numbers to locate a point on a plane.



Rectangular Coordinates



Polar Coordinates

Rectangular Coordinates

Polar Coordinates

(3, 4) = (5, 53.13°)

(-5, 3) = (5.83, 143.13°)

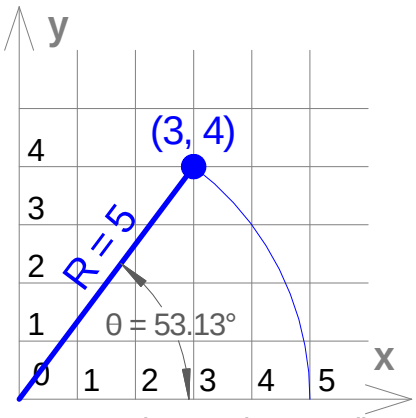
(-4, -5) = (6.4 231.34°)

(3, -1) = (3.16, 341.57°)

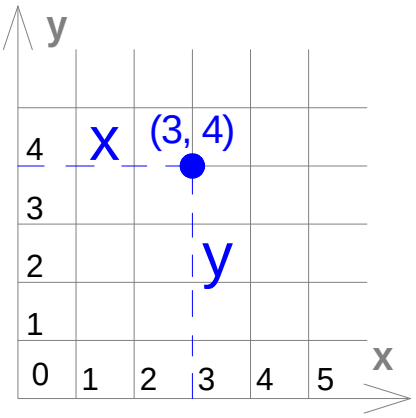
The relationships between rectangular coordinates (x,y) and polar coordinates (R, θ), are as follows:

$y = R \sin \theta$ and $x = R \cos \theta$

$R^2 = x^2 + y^2$ and $\tan \theta = y/x$



Rectangular & Polar Coordinate
R = 5, θ = 53.13°



Rectangular Coordinate

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