



Now we have to find distance between (x_1, y_1) and $(0,0)$:

$$distance = \sqrt{x^2 + y^2}$$

$$a_0 = \cos^{-1} \left(\frac{x_1}{\sqrt{x^2 + y^2}} \right)$$

d is half of the distance.

$$d = \frac{1}{2} \sqrt{x^2 + y^2}$$

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

$$a_1 = a_0 + \theta$$

$$a_1 = \cos^{-1} \left(\frac{x_1}{\sqrt{x^2 + y^2}} \right) + \cos^{-1} \left(\frac{\sqrt{x^2 + y^2}}{2l} \right)$$

$$a_2 = \pi - 2\theta$$

$$a_2 = \pi - 2 \cos^{-1} \left(\frac{\sqrt{x^2 + y^2}}{2l} \right)$$

Here, I use Radian for angles.