

By applying the cosin rule on the $L_1 L_2 C$ triangle:

$$C^2 = L_1^2 + L_2^2 - 2L_1L_2 \cos a_1 \quad (1)$$

By applying the sine rule on the $L_1 L_2 C$ triangle:

$$\frac{L_1}{\sin a_5} = \frac{C}{\sin a_1}$$

$$a_5 = \arcsin \left(\frac{L_1 \cdot \sin a_1}{C} \right)$$

By Combining (1) and (2):

$$a_5 = \arcsin \left(\frac{L_1 \cdot \sin a_1}{\sqrt{L_1^2 + L_2^2 - 2L_1 \cdot L_2 \cdot \cos a_1}} \right) \quad (2)$$

By applying the cosin rule on the R C D triangle:

$$R^2 = C^2 + D^2 - 2.C.D \cos(a_5 + 90) \quad (3)$$

By applying the sine rule on the R C D triangle:

$$(4)$$

Life is too Short
For OS Free Cad
Software

