

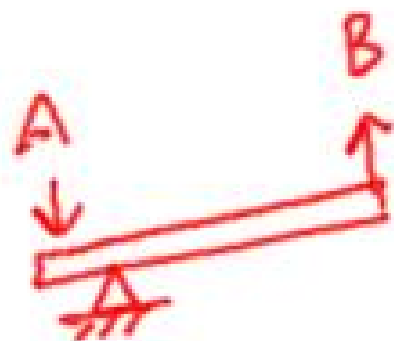


$\downarrow F_A$

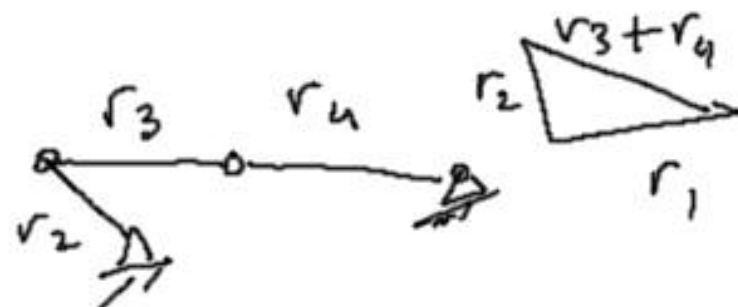
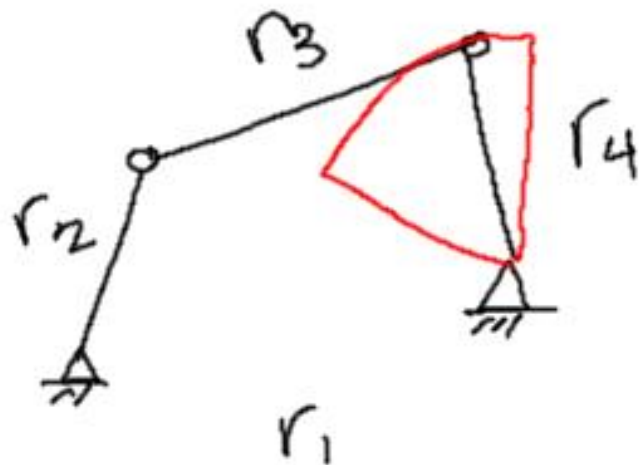
$\uparrow F_B$

$\uparrow V_A$

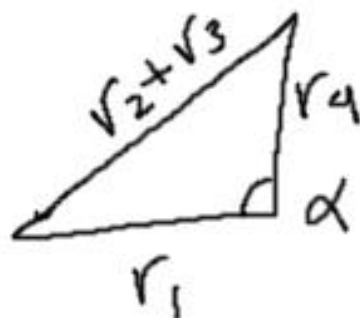
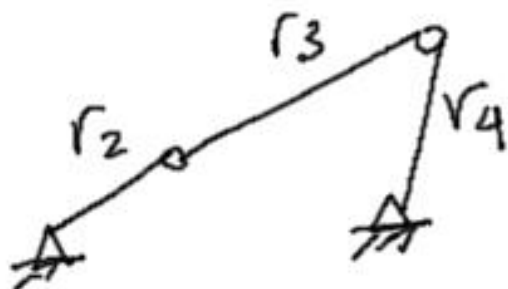
$\downarrow V_B$



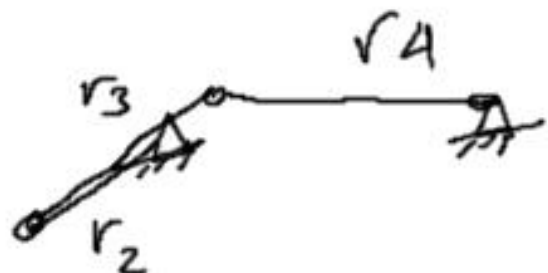
$\uparrow F_A$



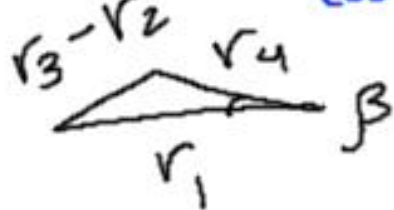
$$\cos^{-1} \left(\frac{r_1^2 + r_4^2 - (r_3 + r_2)^2}{2r_1 r_4} \right)$$

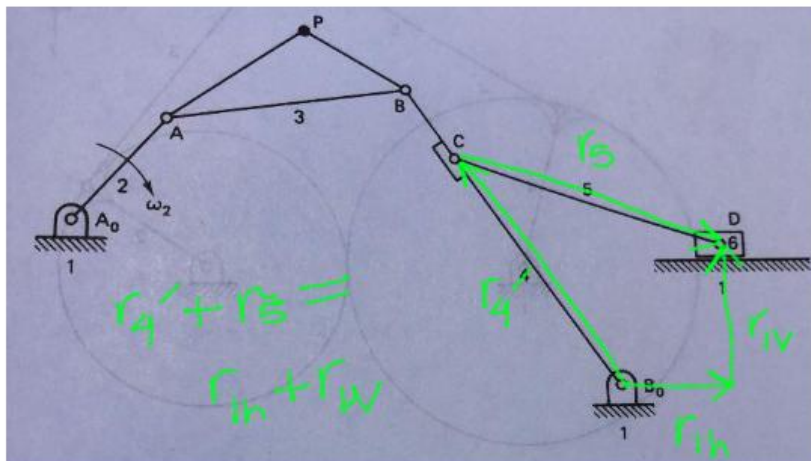
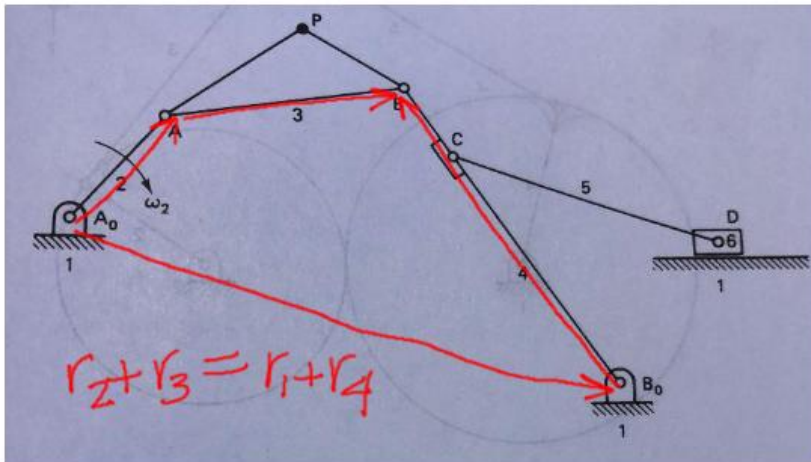


$$|\alpha - \beta|$$



$$\cos^{-1} \left(\frac{r_1^2 + r_4^2 - (r_3 - r_2)^2}{2r_1 r_4} \right)$$



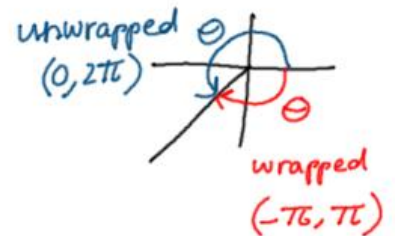


$$r_5 - r_{1h} = r_{1v} - r_4' \\ = Z$$

complexsolvePR()

→ r_{1h} , θ_5 (x2)

$$\text{distance } D = \text{real}(r_1) + \text{real}(r_{1h})$$



Know:

$$\theta_2, \theta_1$$

Unknown:

$$\theta_3, \theta_4$$

$$r_3 - r_4 = r_1 - r_2 \\ = Z$$

complexsolveRR()

→ θ_3, θ_4 (x2)

Know:

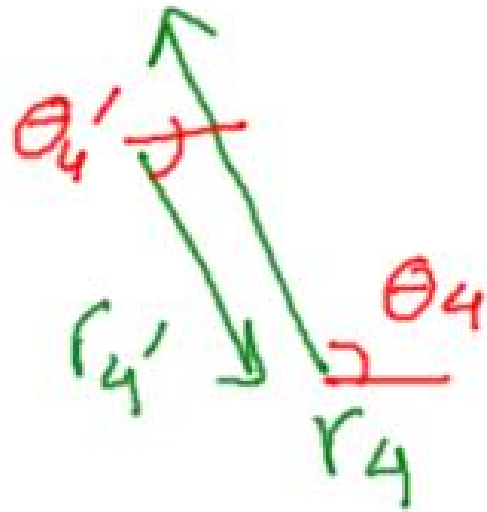
$$r_5, r_{1v}, r_4'$$

$$\theta_{1h} = 0 \quad \theta_{1v} = \frac{\pi}{2}$$

Unknowns:

$$\theta_5 \quad r_{1h} \quad \cancel{\theta_4'}$$

$$\theta_4' = \theta_4$$



$$\theta_4' = \pi - \theta_4$$

$$r_2 + r_{3_1} = B_1$$

$$r_2 + r_{3_2} = B_2$$

