

$$\phi_{\text{others}} = \phi_{\pi_1} - (\phi_{P_1} + \phi_{P_2} + \phi_{P_3})$$

$$\phi_{\text{others}} = \frac{\pi}{2} - \left( \frac{3}{4}\pi + \frac{\pi}{2} + 18.4 \right) = \underline{\underline{-153.4^\circ}}$$

$$0^\circ < \kappa < +\infty$$

$$\phi_{\text{dep}} = 180 + \phi_{\text{others}} \Rightarrow$$

$$\phi_{\text{dep}} = 180 - 153.4 = \underline{\underline{26.6^\circ}}$$

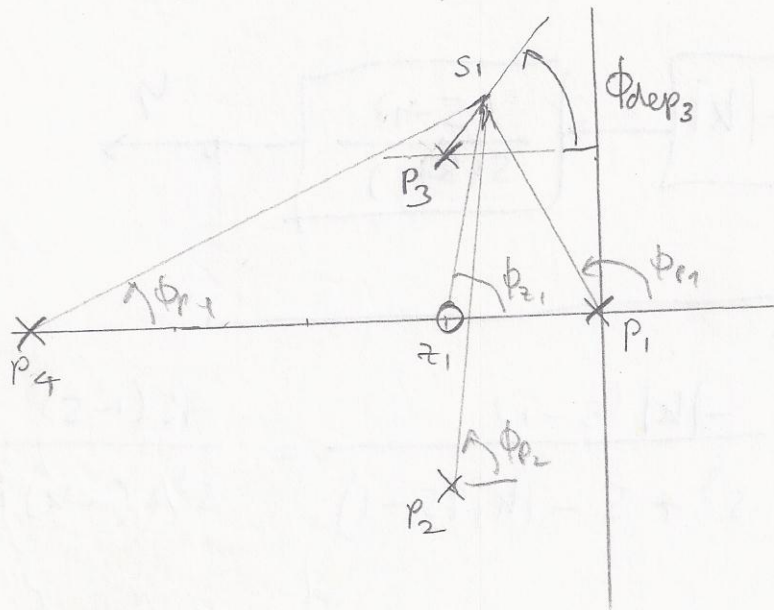
$$-\infty < \kappa < 0^\circ$$

$$\phi_{\text{arr}} = 2\pi + \phi_{\text{others}} \Rightarrow$$

$$\phi_{\text{arr}} = 2\pi - 153.4 = \underline{\underline{206.6^\circ}}$$

( : N d / 3 )

1 2 6 1 5 = 1 6 3 1 2 1 5



RL-180

$0^+ < k < +\infty$  : R.L. =  $\sqrt{8} s_1 = 3/7$

$$(\phi_{z_1}) - (\phi_{p_1} + \phi_{p_2} + \phi_{dep_3} + \phi_{p_4}) = (2h+1)\pi$$

$$\phi_{dep_3} = (2h+1)\pi + \frac{\phi_{z_1} - (\phi_{p_1} + \phi_{p_2} + \phi_{p_4})}{1} = \pi - \phi_{others}$$

$$\frac{\pi}{2} - \left( \frac{3}{4}\pi + \frac{\pi}{2} + \phi_{dep_3} + 18.4^\circ \right) = \pi - \phi_{others}$$

$-\phi_{dep_3} - 153.4 = 180^\circ$        $\phi_{dep_3} = -323.4 = 26.6$

$\phi_{dep_3} = 26.6$

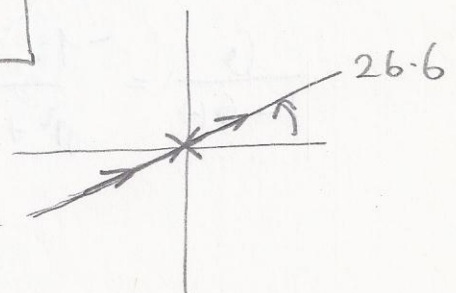
7ARL

$-\infty < k < 0^-$

$-\phi_{arr_2} - 153.4 = 0^\circ \rightarrow$

$\phi_{arr} = -153.4 = 206.6$

one continuous line!!



one continuous line!!