## Exercise 4: Solve the phase problem for one F using two $\mathrm{F}_{\mathrm{H}}$ 's

$$
\begin{aligned}
& \left|\mathrm{F}_{\mathrm{P}}\right|=29.0 \\
& \left|\mathrm{~F}_{\mathrm{PH} 1}\right|=26.0 \\
& \left|\mathrm{~F}_{\mathrm{PH} 2}\right|=32.0
\end{aligned}
$$

Draw three circles with the three radii (scale doesn't matter)

Offset the PH1 circle from the P circle by -FH1
Offset the PH2 circle from the P circle by -FH2
Find the intersection of the circles.

$$
\begin{aligned}
& \mathrm{F}_{\mathrm{H} 1}=7.8 \alpha_{\mathrm{H} 1}=155^{\circ} \\
& \mathrm{F}_{\mathrm{H} 2}=11.0 \alpha_{\mathrm{H} 1}=9^{\circ}
\end{aligned}
$$

