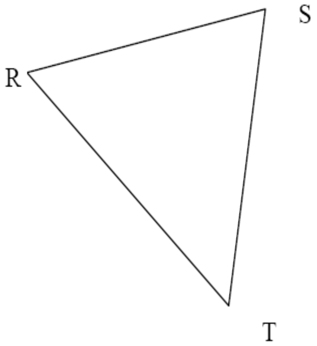
Dados dos puntos, R y T, en una alineación de coordenadas conocidas, calcular las coordenadas de un tercer punto S, que por su interés queremos conocer, sabiendo:

$X_R = 3.000\,m$ $\quad X_T = 3.300\,m$ $\quad \dot{\alpha}_R = 70,4016^g$

$Y_R = 2.500\,m$ $\quad Y_T = 2.100\,m$ $\quad \dot{\alpha}_T = 72,1024^g$



$$\alpha_S = 200 - (\alpha_R + \alpha_T) = 57,496^g$$

$$\theta_R^T = arctg\frac{X_T - X_R}{Y_T - Y_R} = 159,0334^g \qquad (2^o\, cuadrante)$$

$$D_{\overline{RT}} = \sqrt{(X_T - X_R)^2 + (Y_T - Y_R)^2} = 500\,m$$

$$\theta_R^S = \theta_R^T - \alpha_R = 88,6318^g$$

$$\theta_T^S = \theta_T^R - \alpha_S = 359,0334 + 72,1024 = 431,1358^g - 400^g = 31,1358^g$$

$$\frac{D_{\overline{RT}}}{sen\,\alpha_S} = \frac{D_{\overline{RS}}}{sen\,\alpha_T} \qquad D_{\overline{RS}} = 576,63\,m$$

$$\frac{D_{\overline{RT}}}{sen\,\alpha_S} = \frac{D_{\overline{TS}}}{sen\,\alpha_R} \qquad D_{\overline{TS}} = 569,13\,m$$

$$\text{Desde R}\begin{cases} X_S = X_R + D_{\overline{RS}}\, sen\, \theta_R^S = 3.567,46\, m \\ Y_S = Y_R + D_{\overline{RS}} \cos \theta_R^S = 2.602,42\, m \end{cases}$$

$$\text{Desde T}\begin{cases} X_S = X_T + D_{\overline{TS}}\, sen\, \theta_T^S = 3.567,46\, m \\ Y_S = Y_T + D_{\overline{TS}} \cos \theta_T^S = 2.602,42\, m \end{cases}$$