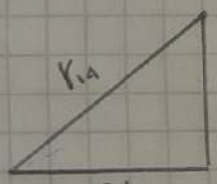
Preparcial:

$$\begin{cases} F_x: F_{12} + F_{14} + T_x = 0 \\ F_y: F_{13} + F_{14} + T_y = 0 \\ F_z: T_z - W = 0 \end{cases}$$



$$r_{14}^2 = 4r_x^2 + 4r_x^2$$

$$r_{14}^2 = 8r_x^2$$

$$F_x: -k\frac{q^2}{(2r_x)^2} - \frac{kq^2}{8r_x^2} + \frac{w\sqrt{2}}{2}\tan\theta = 0$$

$$r_x = \frac{5\sqrt{2}}{2}\operatorname{Sen}\theta$$

F_y: igual a F_x

F_z: $T_z = W$

$$-\frac{kq^2}{50}\cdot\frac{1}{\operatorname{Sen}^2\theta} - \frac{kq^2}{20\sqrt{2}}\cdot\frac{1}{\operatorname{Sen}^2\theta} + \frac{w\sqrt{2}}{2}\tan\theta$$