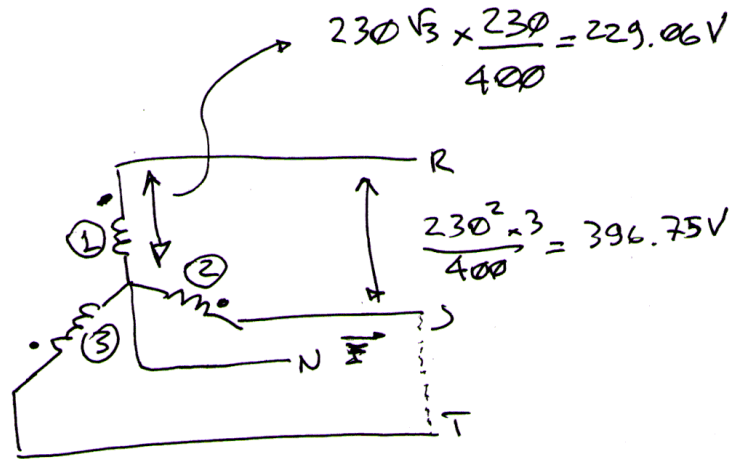
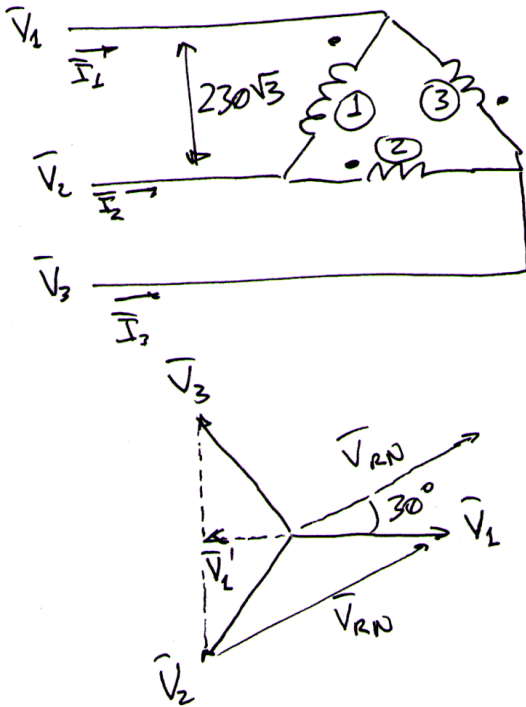


PROBLEMA 2 - SOLUCIÓN

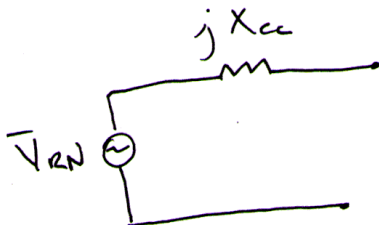
1)



$$\bar{V}_{RN} = (\bar{V}_1 - \bar{V}_2) \frac{230}{400}, \dots$$

$$\begin{aligned} \bar{V}_{RN} &= 229.06 \angle 30^\circ \text{ V} \\ \bar{V}_{SN} &= 229.06 \angle -90^\circ \text{ V} \\ \bar{V}_{TN} &= 229.06 \angle 150^\circ \text{ V} \end{aligned}$$

2)



$$X_{cc} = 0.05 \cdot \frac{230^2}{5000} = \boxed{0.529 \Omega}$$

3) S, T en corto  $\Rightarrow \bar{I} = \frac{396.75 \angle -60^\circ}{j2X_{cc}} = \frac{396.75}{2X_{cc}} \angle -150^\circ = 375 \angle -150^\circ \text{ A}$

$$\begin{aligned} \bar{I}_1 &= -\bar{I} \times \frac{230}{400} = 215.625 \angle 30^\circ \\ \bar{I}_2 &= -\bar{I} \times \frac{230}{400} = 215.625 \angle 30^\circ \\ \bar{I}_3 &= 2\bar{I} \times \frac{230}{400} = 431.25 \angle -150^\circ \end{aligned}$$

4) Las impedancias de secuencia tienen que  $\bar{V}_1' = \frac{\bar{V}_2 + \bar{V}_3}{2}$ ,

luego  $\bar{V}_{RN} = (\bar{V}_1' - \bar{V}_2) \frac{230}{400} = \boxed{114.5 \angle 90^\circ \text{ V}}$