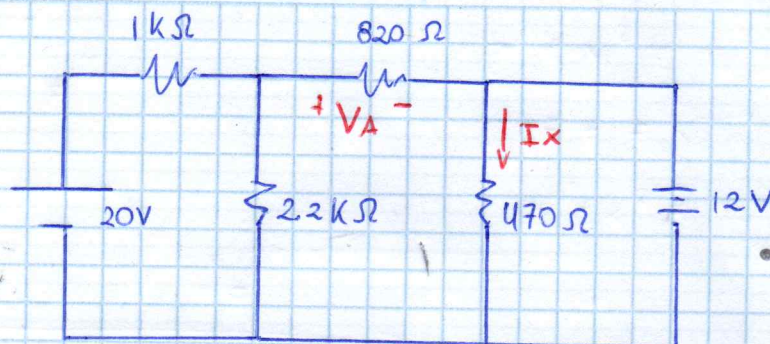


"La educación y la cortesía abren todas las puertas"

Thomas Corle



Respuestas

$$V_A = V_A' - V_A''$$

$$V_A = 7.479 - 6.527$$

$$V_A = 0.952 \text{ V}$$

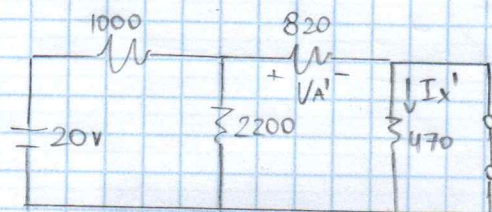
$$\bullet V_A = 952 \text{ mV}$$

$$I_x = I_x' + I_x''$$

$$I_x = 0.0255 \text{ A}$$

$$\bullet I_x = 25.5 \text{ mA}$$

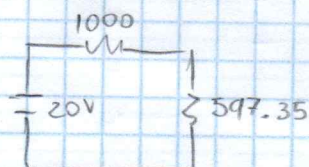
①



$$470 \parallel 0 = 0$$

$$0 + 820 = 820$$

$$820 \parallel 2200 = \frac{(820)(2200)}{820 + 2200} = 597.350993$$

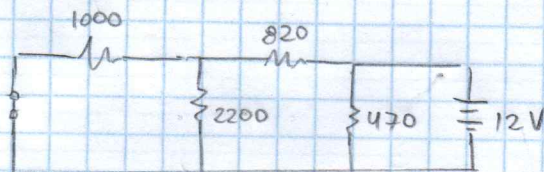


$$V_{597.35} = \frac{597.3509934 (20)}{597.350994 + 1000} = 7.479270315 = V_A'$$

$$I_{x'} = 0$$

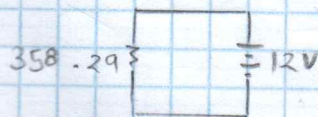
La corriente va por el camino más fácil

②



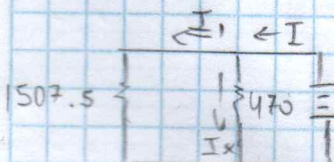
$$1000 \parallel 2200 = \frac{(1000)(2200)}{1000 + 2200} = 687.5$$

$$687.5 + 820 = 1507.5 \rightarrow 1507.5 \parallel 470 = \frac{(1507.5)(470)}{1507.5 + 470} = 358.2932946$$



$$V = I \cdot R$$

$$I = \frac{V}{R} = \frac{12}{358.29} = 0.0334921139 = I$$



$$I_{x''} = \frac{1507.5 (0.03349)}{1507.5 + 470} = 0.02553191489$$

$$I_1 = \frac{470 (0.03349)}{470 + 1507.5} = 7.960199005 \times 10^{-3}$$

$$V_A'' = I R = (7.96 \times 10^{-3})(820) = 6.527363184$$