INSTALACIÓN DE SISTEMAS ELÉCTRICOS

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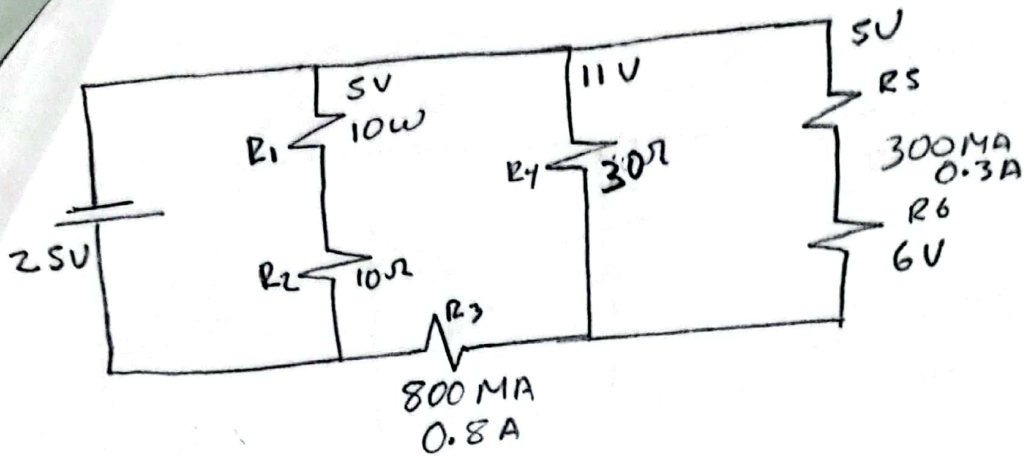
APROBADO

12,5 31,2 43,7

Escaneado con CamScanner

Código Proyecto 2288368

SENA | LÍNEA TECNOLÓGICA: PRODUCCIÓ... RED TECNOLÓG...



Datos

$I_{S6} = 300MA$

$V_{R6} = 6V$

$R_4 = 10\Omega$

$P_1 = 10W$

$V_1 = 5V$

$R_2 = 10\Omega$

$I_{R3} = 800MA$

buscar

$R_6 = 20\Omega$ ✓

$I_2 = 2A$ ✓

$V_S = 5V$

$P_6 = 1.8W$ ✓

$I_1 = I = \frac{P}{V} = \frac{10}{5} = 2A$

$V = I_1 + I_2 = 2A$

$V_2 = I \cdot R = (2A) \cdot (10\Omega) = 20V$

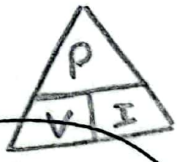
$P_6 = V \cdot I = (6V) \cdot (0.3A) = 1.8W$

$R_6 = \frac{V}{I} = \frac{6V}{0.3} = 20\Omega$

$R_S = \frac{V}{I} = \frac{5}{0.3} = 16.66\Omega$

$V_{R4} = V_{R6} + R_6$





$R_6 = 20\Omega$.

$I_2 = 2$

$V_S = 9V$

$I_2 = \frac{2}{10\Omega} = 0,2.$

$P_6 = 6 \times 0,3$

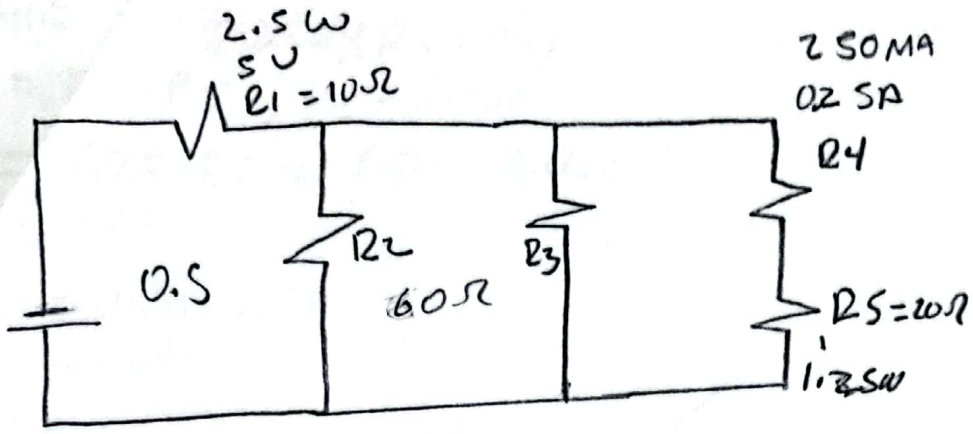
$P_6 = 1,8$

$V = I R.$ $P = V I$

$R = \frac{V}{I}$

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Datos

$I_T = 0.5A$

$R_{23} = 60\Omega$

$I_2 = 100m$

$I_4 = 250m$

$P_5 = 1.25$

$P_1 = 2.5W$

$= I.R$

$= I.V$

$= I^2.R$

$P = I^2.R$

$R_1 = \frac{P}{I^2} = \frac{2.5W}{0.25} = R_1 = 10\Omega$

$U_1 = I.R = (0.5).(10\Omega) = 5V$

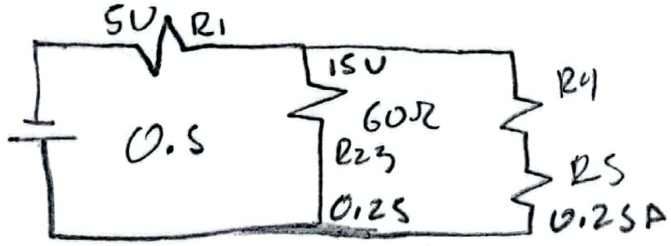
Calcular

$E_T = 200V$

$R_4 = 40\Omega$

$R_3 = 100\Omega$

$R_1 = 10\Omega$



$E_T = ?$

R_4

$I_T = I_{R_{23}} 60\Omega + I_4$

$I_{R23} = I_T - I_4 = (0.5 - 0.25) = 0.25A$

R_3

$V_{23} = (0.25) \times (60\Omega) = 15V$

$R_1 =$

$et = 5V + 15V = 20 et$

$R_5 = \frac{P}{I^2} = \frac{1.25W}{0.0625} = 20\Omega$

Por Deducion de corriente de

$_{23} = I_{t4}$

$_3 = V_{R4S}$

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$A)(60\Omega) = (0,25A)(R_4 + R_5)$

$60\Omega = R_4 + R_5$; $R_5 = 20\Omega$

$R_4 = 60\Omega - R_5 = 60\Omega - 20\Omega$

$R_4 = 40\Omega$

$I_3 = 0,25A - 0,1A$

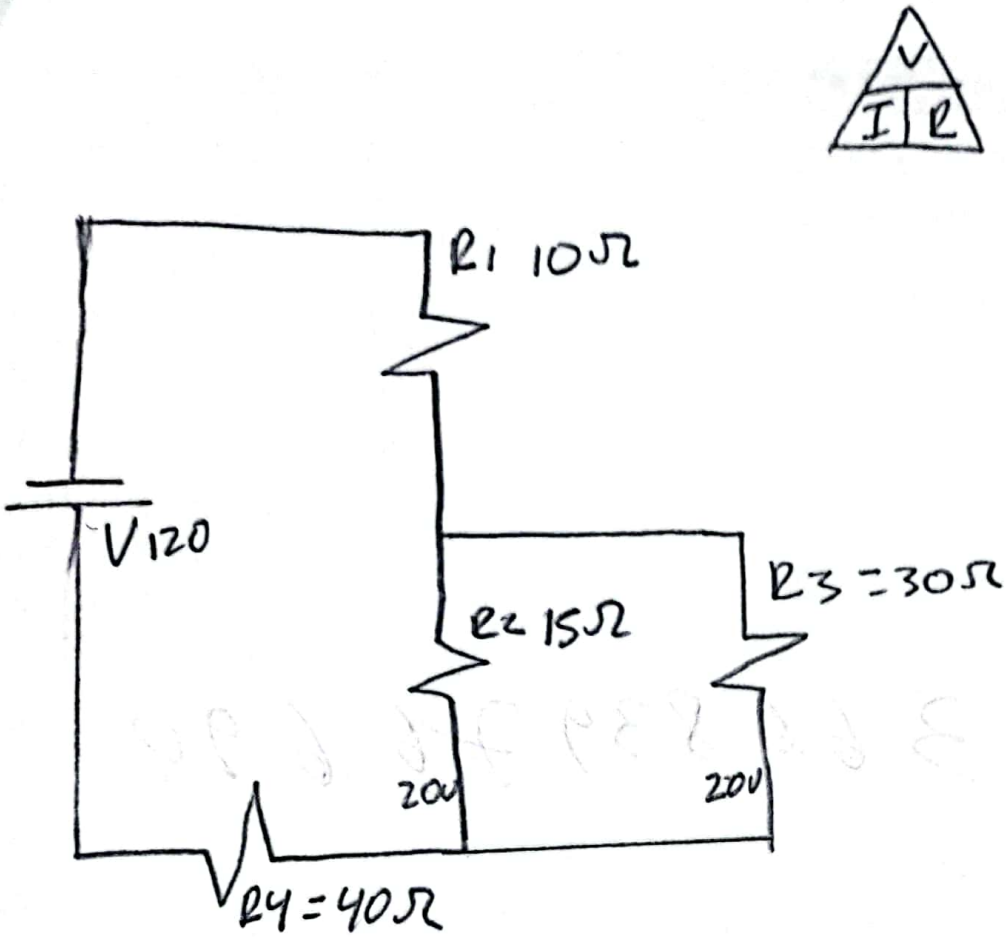
$I_3 = 0,15A$

$V = IR$

$R_3 = \frac{V_{23}}{I} = \frac{15V}{0,15A} = 100\Omega$

$R_3 = 100\Omega$

Escaneado con CamScanner



buscar:

$I_T = 2A$ ✓

$I_1 = 2A$ ✓

$I_2 = 1.3A$ ✓

$I_3 = 0.67A$ ✓

$I_4 = 2A$ ✓

$$\frac{15\Omega \times 30\Omega}{15\Omega + 30\Omega} = \frac{450}{45} = 10\Omega$$

$$R_1 + R_4 + 10\Omega = 60\Omega$$

$$R_T = 60\Omega$$

$$I_T = \frac{V}{R} = \frac{120}{60} = 2A$$

$$V = I \cdot R = 2A \times 10\Omega = 20V$$

$$I_2 = \frac{V}{R} = \frac{20V}{15\Omega} = 1.3A$$

$$I_3 = \frac{V}{R} = \frac{20V}{30\Omega} = 0.67A$$

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