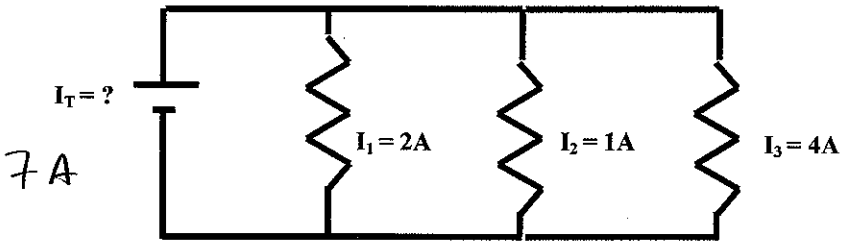
CIRCUIT MATH

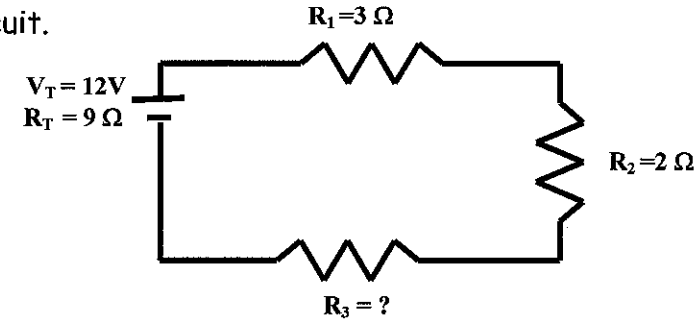
Solve the following problems showing all work.

1. Find I_T for the following circuit.



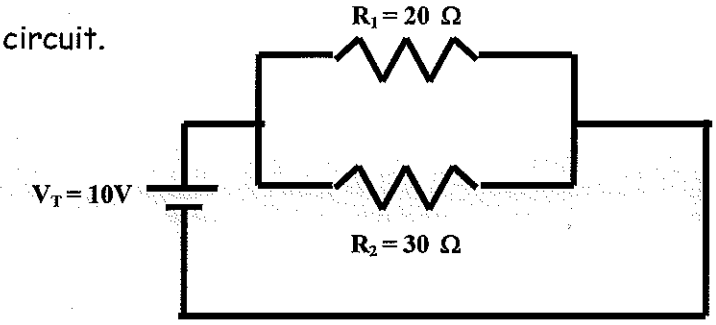
7 A

2. Complete the table for this circuit.



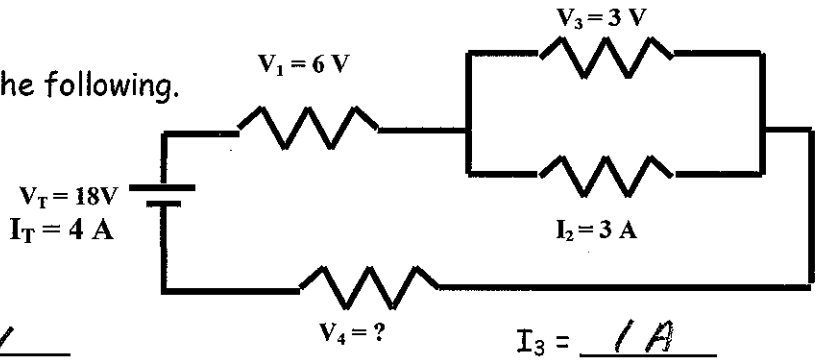
$V_T = 12$ V	$V_1 = 3.9$ V	$V_2 = 2.6$ V	$V_3 = 5.2$ V
$R_T = 9\ \Omega$	$R_1 = 3\ \Omega$	$R_2 = 2\ \Omega$	$R_3 = 4\ \Omega$
$I_T = 1.3$ A	$I_1 = 1.3$ A	$I_2 = 1.3$ A	$I_3 = 1.3$ A

3. Complete the table for this circuit.



$V_T = 10$ V	$V_1 = 10$ V	$V_2 = 10$ V
$R_T = 12\ \Omega$	$R_1 = 20\ \Omega$	$R_2 = 30\ \Omega$
$I_T = 0.83$	$I_1 = 0.5$ A	$I_2 = 0.33$ A

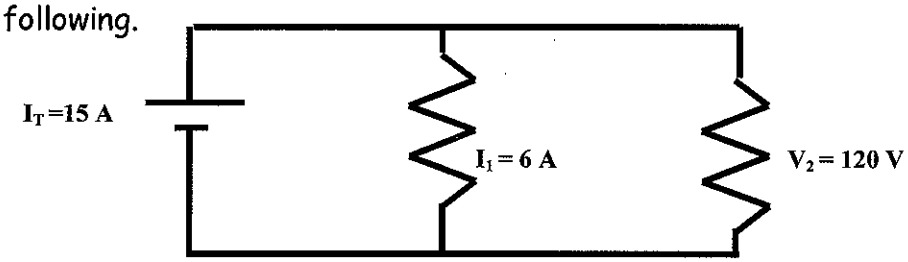
4. Find the following.



$V_2 =$ 3V $I_3 =$ 1A

$V_4 =$ 9V $I_4 =$ 4A

5. Find the following.

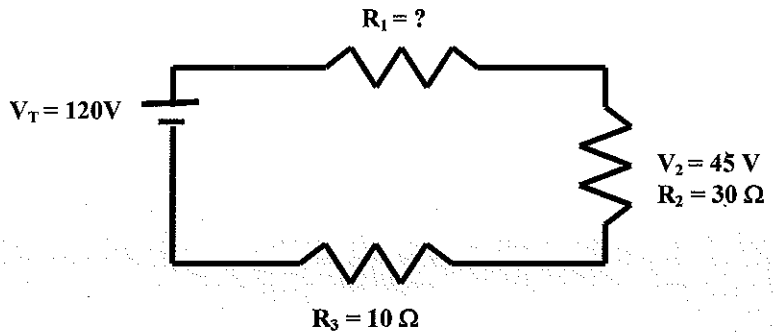


$V_T =$ 120V $R_1 =$ 20Ω

$V_1 =$ 120V $R_2 =$ 13.3Ω

$I_2 =$ 9A

6. Find the following.



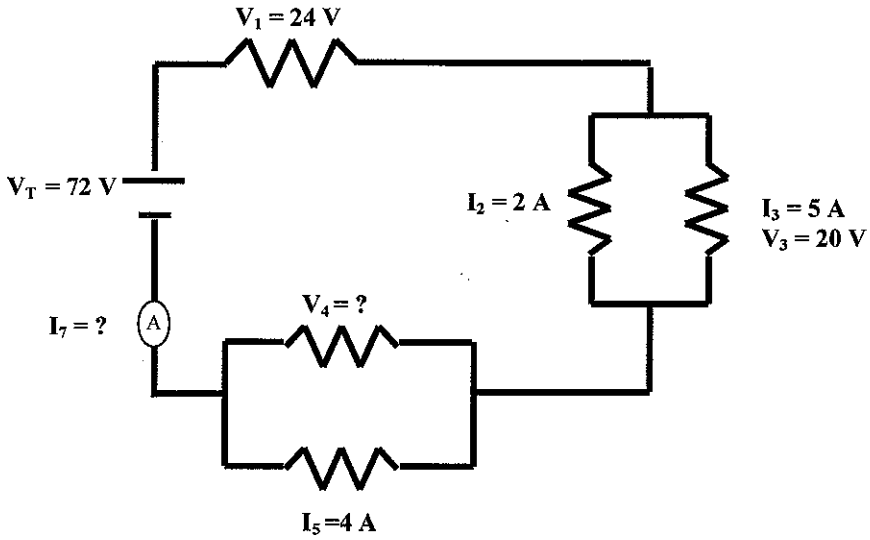
$V_3 =$ 15V $I_3 =$ 1.5A

$V_1 =$ 60V $R_1 =$ 40Ω

$I_1 =$ 1.5A $R_T =$ 80Ω

$I_2 =$ 1.5A

7. Find the following.



$I_1 =$ 7A

$V_2 =$ 20V

$V_4 =$ 28V

$V_5 =$ 28V

$I_4 =$ 3A

$I_7 =$ 7A