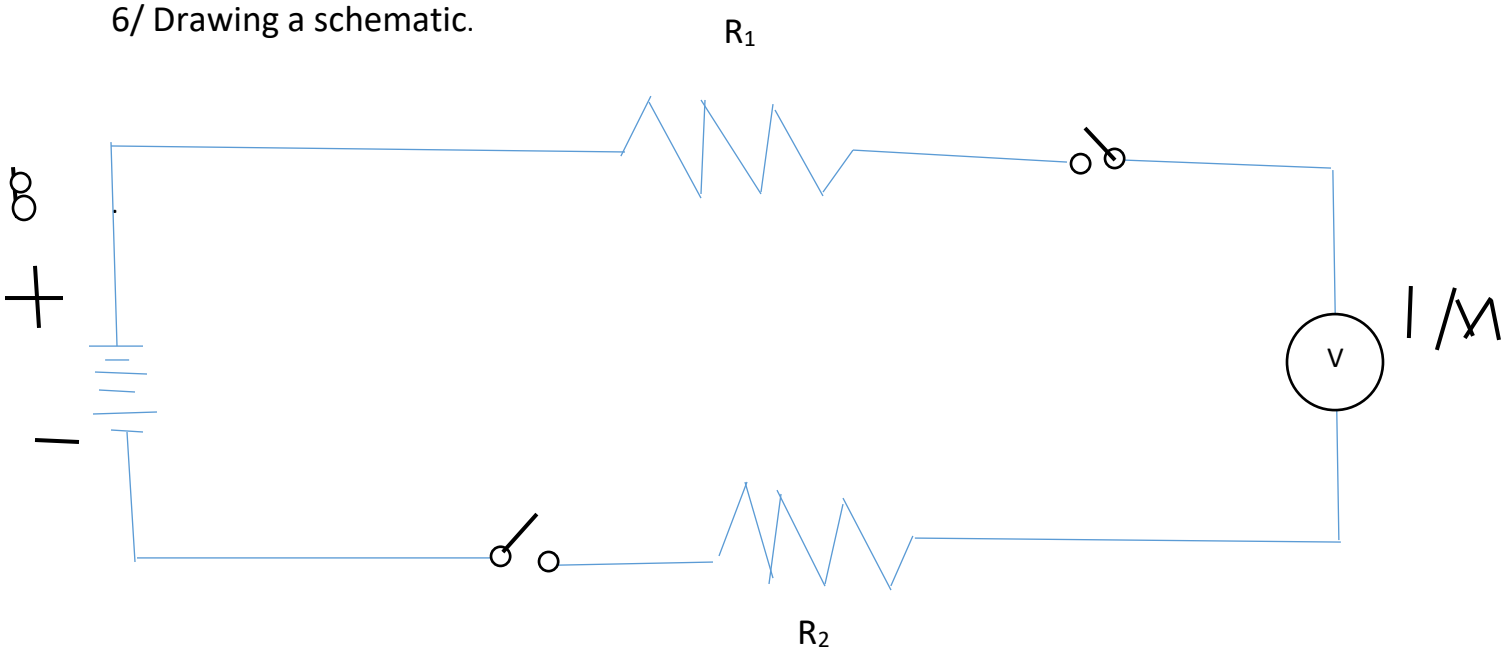
# Class Sessions

**Week 2. Chapter (2)** **Juddo Abaker**

Analysis Questions.

6/ Drawing a schematic.



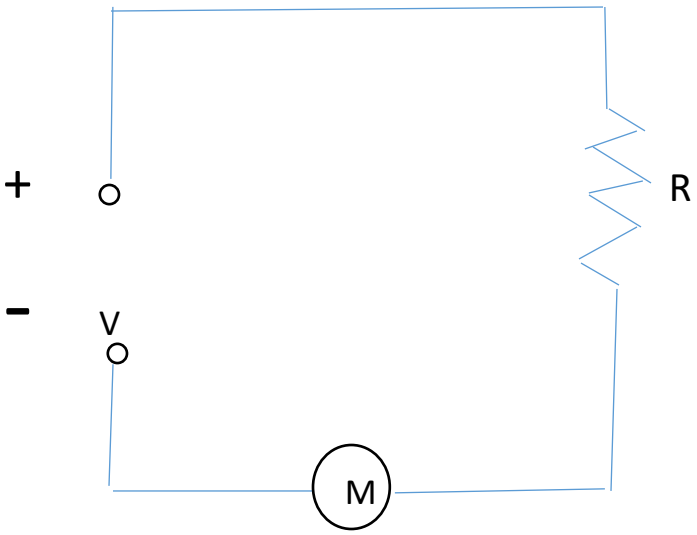

7/ List of color coding resistors.

a. Brown, black, red and silver.
b. Red, violet and orange.
c. Brow, black, green and silver.
d. Brown, black, black and gold.

Juddo Abaker

EECT-111-S1C-C1 Chapter (3).

HW. Problems.




FIGER 3-7

7.V=IR then R=V/I  so R=41V/50Ma=.82Ω=820Ω

10. 180w*1/3 = 60W

13. Power will increase, P=V*I.so, I is same and V doubled.

21.V=sqr- of PR. Then V=sqr of 100Mw*10KΩ = 31.6227766^2=1000mv= 100V

$R_1$  = 12kΩ

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EETC-111

HW-Chapter (4)

20. $R_T = R_1 + R_2 + R_3 + R_4 + R_5 + R_6$

$R_T$ = 1KΩ+47KΩ+10KΩ+27KΩ+5KΩ+1K = 91KΩ

$V_T$ = $I_T \times R_T$

$R_4$ = 27KΩ

$V_4$ = 54KΩ

$I_4$ = V4/R4 = 54V/27KΩ = 2mA

$V_T$ = (2mA×91Ω) = 182V

a. $V_2$ = $I_2 \times R_2$ =(2mA×47KΩ) $M_1$ =94V
b. $V_3$ = $I_3 \times R_3$ = (2mA×1kΩ) $M_3$ = 2V
c. $I_T$ = 2mA
d. $P_T = V_T \times I_T$ = (182V× 2mA) = 364mW

New.

$R_T$ = 91KΩ

$P_T$ = 2(364Mw) =728Mw

$P_T$ = $V_T^2 / R_T$

$V_T$ = square root of (728Mw)(91KΩ) = 257.39V

$I_T$ = square root of $P_T / R_T$ = SQrt of 728Mw/91kΩ =2.83mA

26. the circuit applied voltage increase.

Chapter (5).

8. $V_T$ = $I_T \times R_T$

$R_T$ = 40V/10mA =4kΩ

$1/R_T$ = $1/6k\Omega + 1/R_1$

$1/4k\Omega$ = $1/6k\Omega + 1/R_1$

$1/R_1$ = $1/4k\Omega - 1/6k\Omega$

$1/R_1$ = $1/12k\Omega$

9. $V_2$ = (2A)(25Ω) = 50V

$V_1 = V_2 = 50V$

$I_1 = 2.5A - 2 = 0.5A$

$P_1 = V_1 I_1$ = (50V) (0.5A) = 25W

13. $1/R_T = 1/R_X + 1/R_1 + 1/R_2 + 1/R_3 + 1/R_4$

$1/10K\Omega = 1/R_X + 1/100K\Omega + 1/47K\Omega + 1/27K\Omega$

$1/R_X = 1/10K\Omega - 1/100K\Omega - 1/47K\Omega - 1/27K\Omega = 0.039k\Omega$

$1/R_X = 1/0.039k\Omega = 31.56k\Omega$