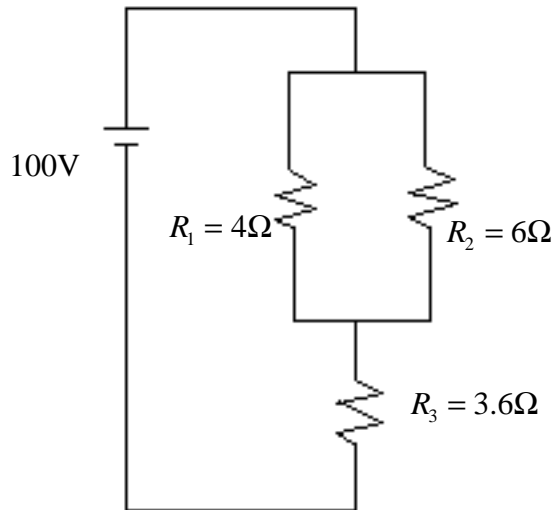


1.



(i) Find R_T

(ii) Find I_T

(iii) Find
 $V_1 = ?$
 $V_2 = ?$
 $V_3 = ?$

$I_1 = ?$
 $I_2 = ?$
 $I_3 = ?$

2.

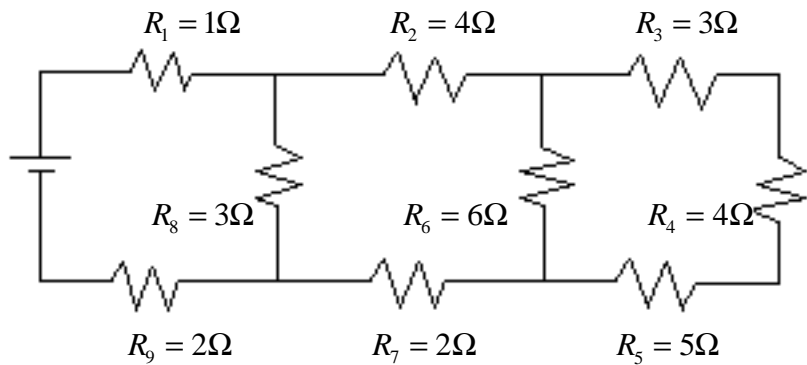
(i) Find R_T or R_{EQ}

(ii) If $V_6 = 24V$ then find

$V_3 = ?$

$V_4 = ?$

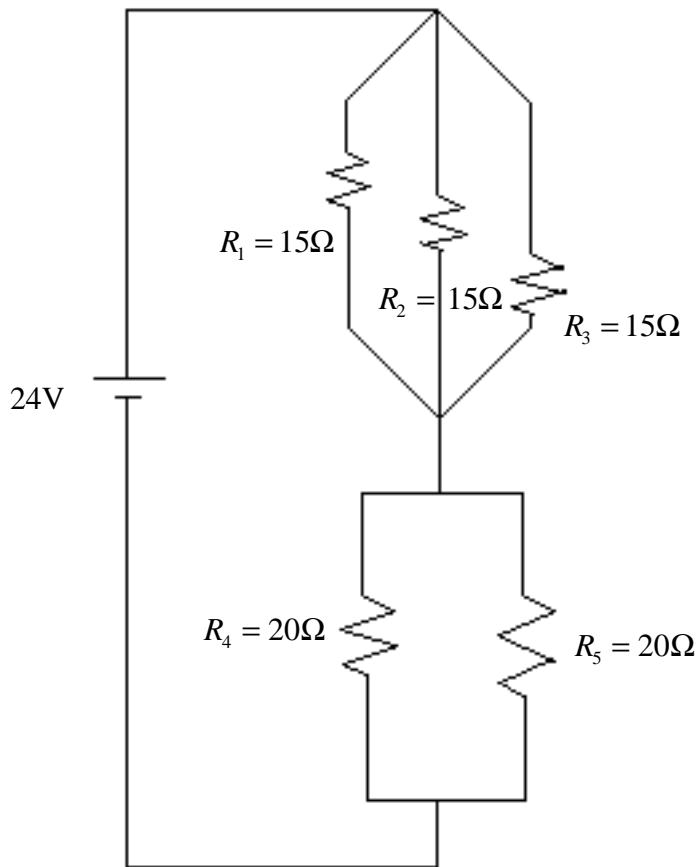
$V_5 = ?$



3. (i) Find the resistance of a 25W light bulb rated at 125V.

(ii) Using a source voltage of 120V and 5 light bulbs of 240Ω each, draw a schematic which
 (a) uses 22.5W of power and (b) where one bulb can be used to turn all the lights on and off.

4.



(i) Find R_T

(ii) Find I_T

(iii) Find

$$V_1 = ?$$

$$V_2 = ?$$

$$V_3 = ?$$

$$V_4 = ?$$

$$V_5 = ?$$

$$I_1 = ?$$

$$I_2 = ?$$

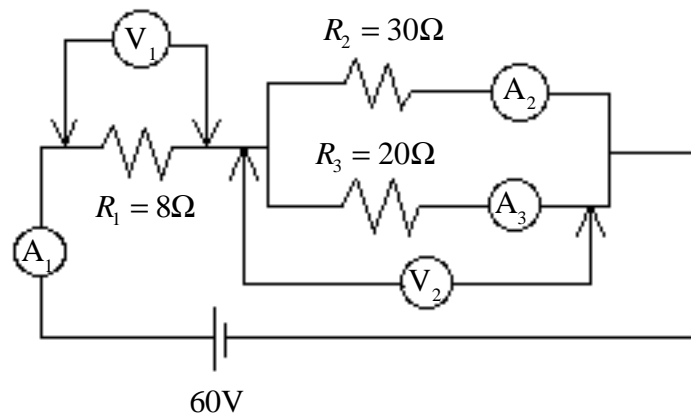
$$I_3 = ?$$

$$I_4 = ?$$

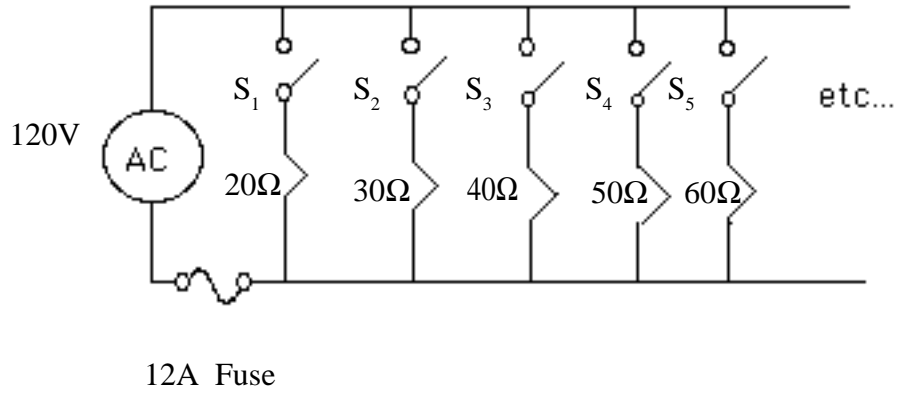
$$I_5 = ?$$

5. (a) What do ammeters, $A_1, A_2,$ and A_3 read?

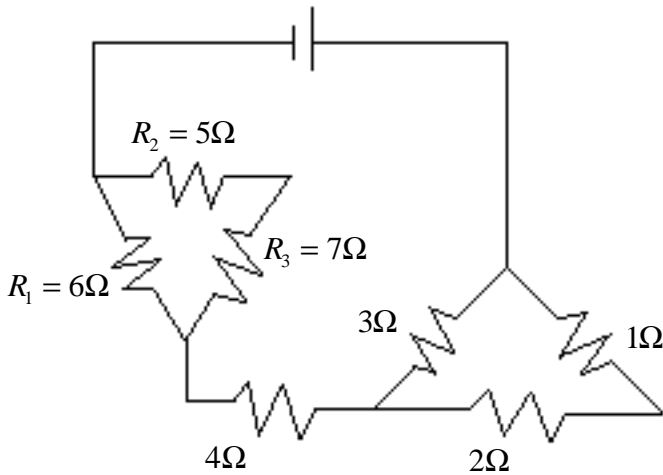
(b) What do voltmeters, V_1 and V_2 read?



6. Turn the switches on in the following order:
 S_1, S_2, S_3 , etc.
 When will the circuit
 “blow a fuse” ?



7.



(i) Find R_T

(ii) If $I_T = 8A$ find

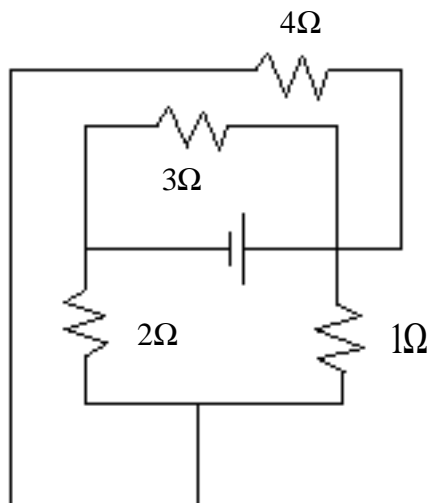
$I_1 = ?$

$I_2 = ?$

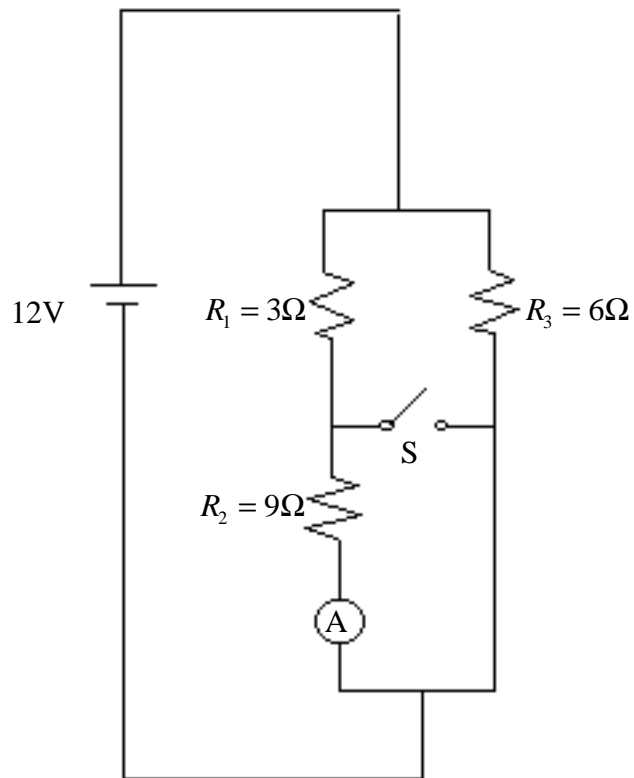
$I_3 = ?$

8.

Find R_T



9. (a) With switch, S, open as shown, what does the ammeter, A, read?
 (b) With switch, S, closed, what does the ammeter read?
 (c) Which switch position uses the most energy per second?
 Show your calculations.



10. Multiple Choice (Select one answer only.)

- (a) Mr. Ryono couldn't think of another tricky problem so late at night.
- (b) Mr. Ryono is just a nice guy.
- (c) Mr. Ryono wishes all his students a happy Groundhog Day.
- (d) Mr. Ryono is an infamous mathematics teacher in hiding.
- (e) None of the above.