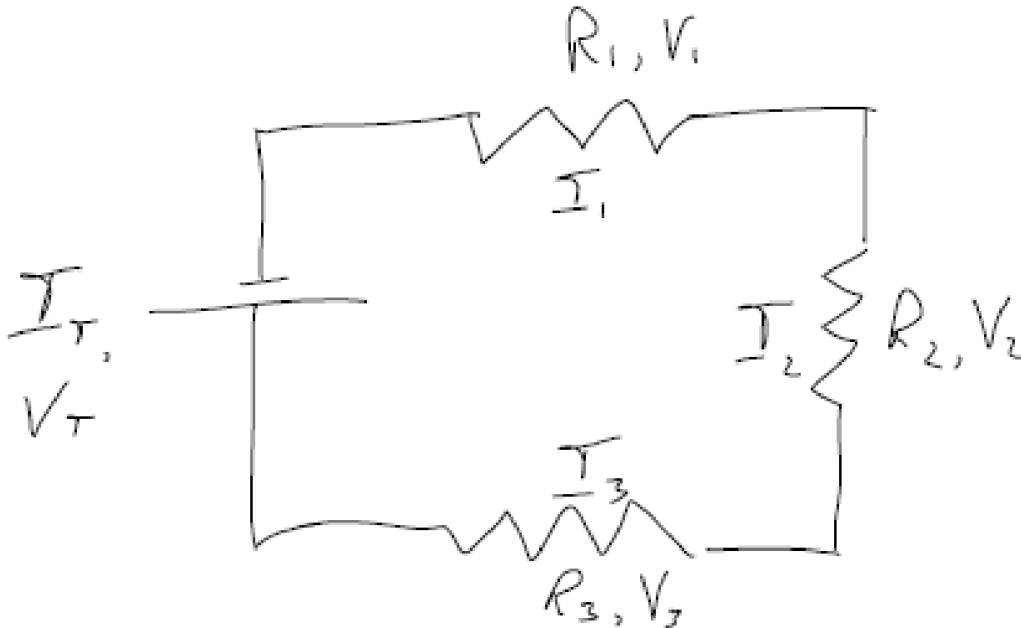


Consider the following series circuit;



$$V_T =$$

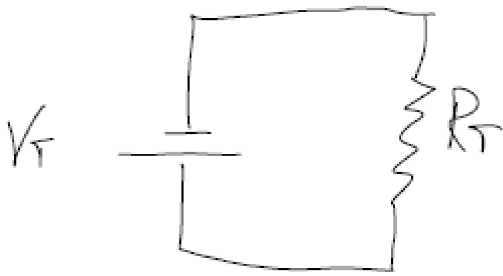
... and applying ohm's law, we can rewrite this equation as;

$$IR_T =$$

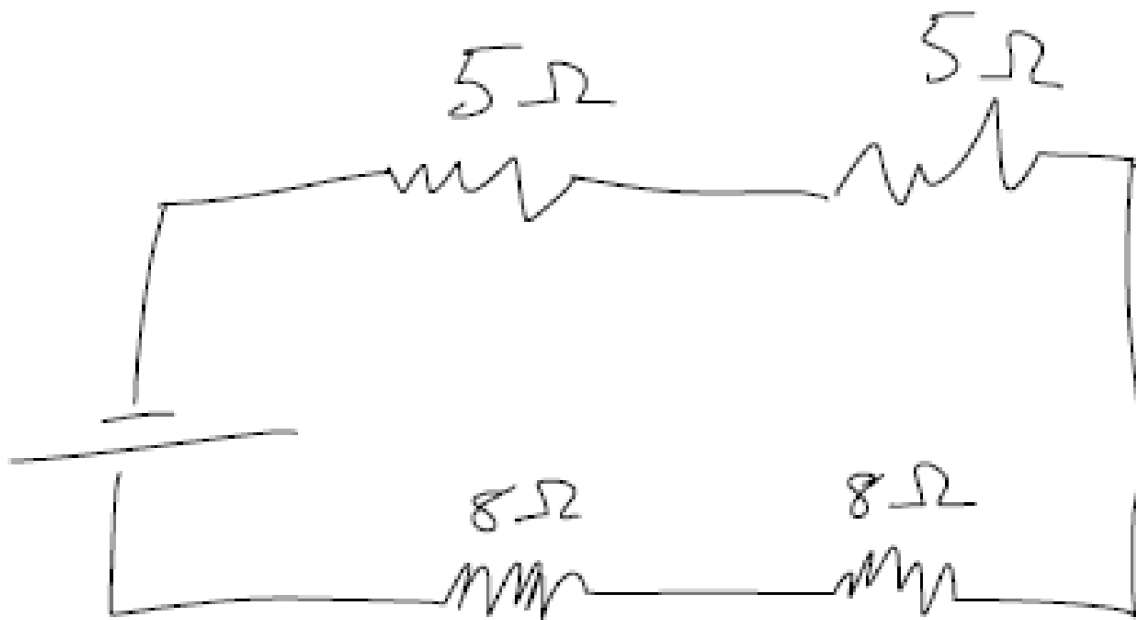
... and given Kirchoff's current law, we can simplify to;

$$R_T =$$

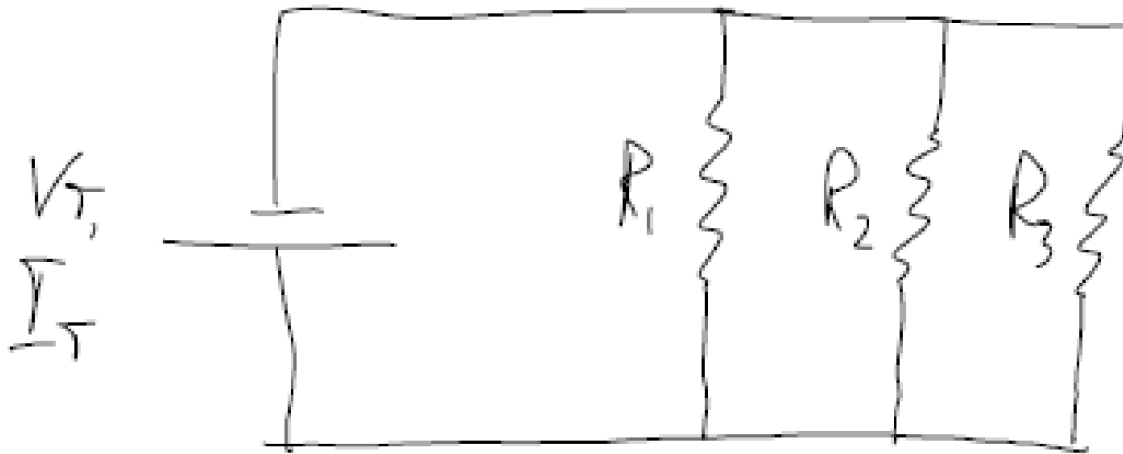
... now the circuit can be simplified as follows;



Eg: Find the total resistance for the following circuit;



Connecting resistors in parallel;



$$I_T =$$

... and applying Ohm's law;

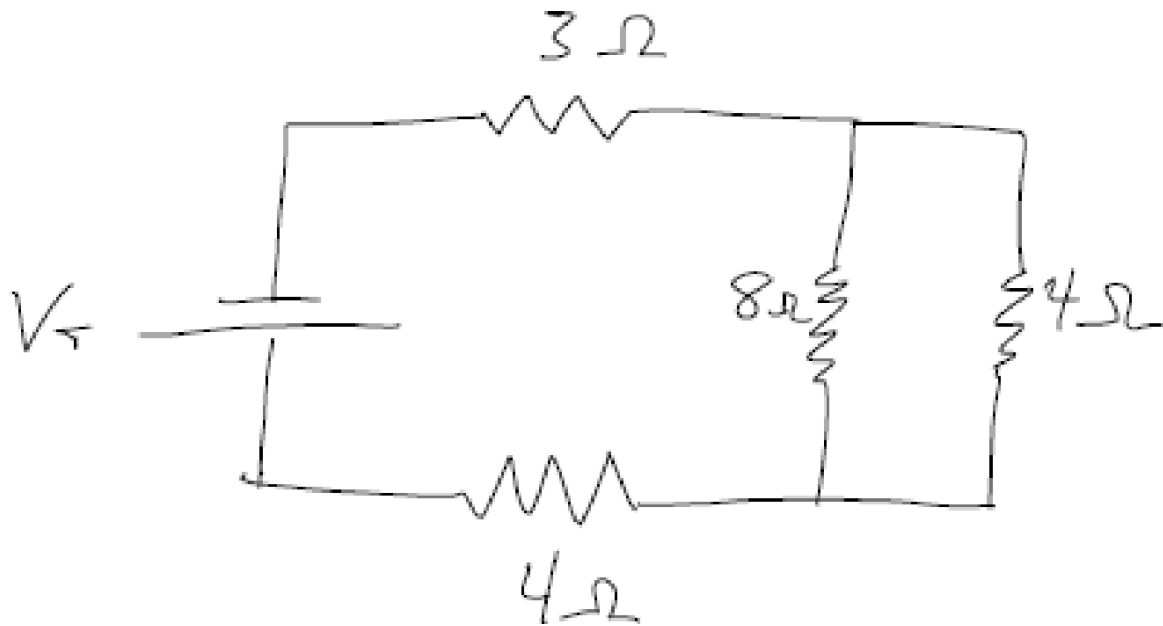
$$V_T/R_T =$$

... applying Kirchoff's voltage law;

$$1/R_T =$$

Eg: for a circuit which is connected with three resistors in parallel, find the total resistance. The resistances of the individual resistors are; 9 ohms, 6 ohms, and 3 ohms.

Eg: find the total resistance for the following circuit;



HW: page 530, #1 - 5