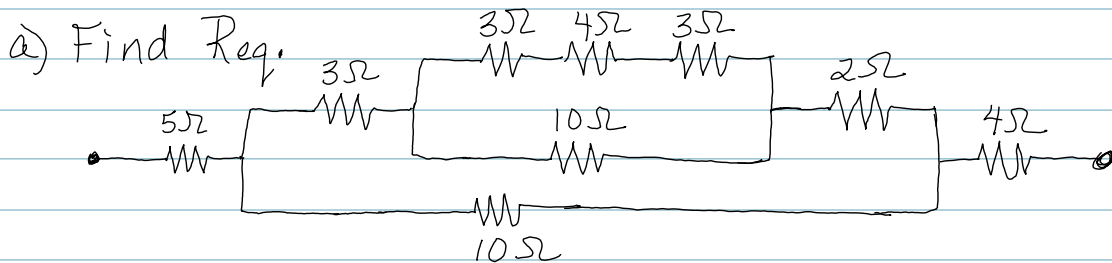
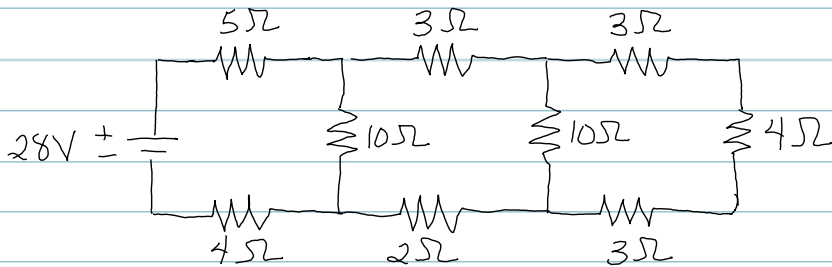


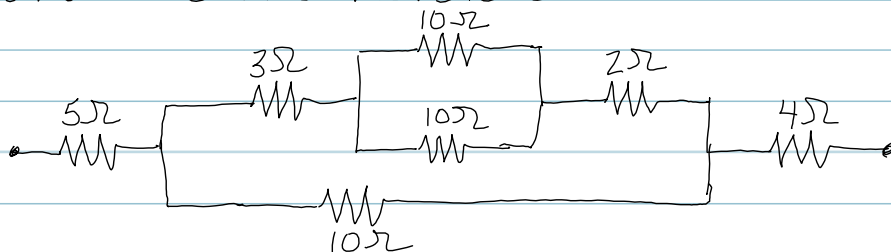
# Electric Circuits Review: # 46 p. 758

Find the following for the circuit shown:

- Equivalent Resistance,  $R_{eq}$
- Current thru the  $5\Omega$  Resistor

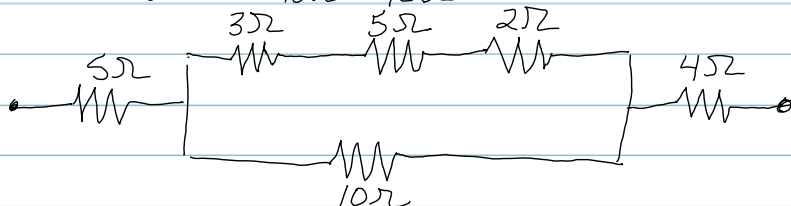


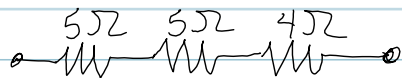
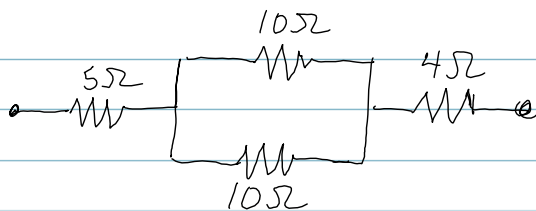
Combine series resistors:



Combine parallel resistors:  $R_{eq} = \frac{1}{\frac{1}{R_1} + \frac{1}{R_2} \dots}$

$$R_{eq} = \frac{1}{\frac{1}{10\Omega} + \frac{1}{10\Omega}} = 5\Omega$$





$$R_{eq} = 5\Omega + 5\Omega + 4\Omega = \boxed{14\Omega}$$

$$b) I_{5\Omega} = ? = I_T$$

Use Ohm's Law,  $V = IR$ , to solve for  $I$   
 using  $V = V_T = 28V$  and  $R = R_{eq} = 14\Omega$ :

$$\frac{V}{R} = \frac{IR}{R} \rightarrow I = \frac{V}{R} = \frac{28V}{14\Omega} = \boxed{2A = I}$$