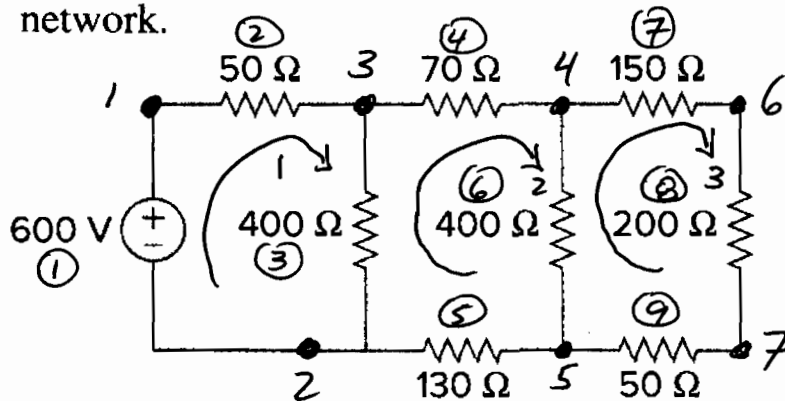


Find the number of branches b , nodes n , and independent loops l in the circuit of problem 2.34.

2.34 Using series/parallel resistance combination, find the equivalent resistance seen by the source in the circuit. Find the overall absorbed power by the resistor network.



i) $\overset{\#}{\text{branches}} = \underline{\underline{b = 9}}$

• $\# \text{ nodes} = \underline{\underline{n = 7}}$

$\hookrightarrow \# \text{ independent loops} = \underline{\underline{l = 3}}$

Check answers using (2.12)

$$b = l + n - 1$$

$$9 \stackrel{?}{=} 3 + 7 - 1$$

$$\underline{\underline{9 = 9}} \therefore \text{checks out!}$$