2.3. What colors should bands $a$, $b$, $c$, and $d$ be for the following circuit B to have the equivalent resistance of circuit A?

![Circuit](image)


2.16. Find $V_{\text{out}}$ in the following circuit:

![Circuit](image)

2.22. For the following circuit with $R_1 = 1 \, \text{k} \Omega$, $R_2 = 9 \, \text{k} \Omega$, $R_3 = 10 \, \text{k} \Omega$, $R_4 = 1 \, \text{k} \Omega$, $R_5 = 1 \, \text{k} \Omega$, $V_1 = 5 \, \text{V}$, and $V_2 = 10 \, \text{V}$, find $I$ and the voltage at node $A$.
2.32. For the following circuit, what are the steady state voltages across $R_1$, $R_2$, and $C$, if $V_s = 10 \text{ V DC}$, $R_1 = 1 \text{k}\Omega$, $R_2 = 1 \text{k}\Omega$, and $C = 0.01 \mu\text{F}$?

![Circuit Diagram](image)

2.33. Find the steady state current $I(t)$ in the following circuit, where $R_1 = R_2 = 100 \text{k}\Omega$, $C = 1 \mu\text{F}$, and $L = 20 \text{ H}$ for

a. $V_s = 5 \text{ V DC}$

b. $V_s = 5 \cos(\pi t) \text{ V}$

![Circuit Diagram](image)

2.40. For the following circuit with $R_1 = 1 \text{k}\Omega$, $R_2 = 2 \text{k}\Omega$, $R_3 = 3 \text{k}\Omega$, $R_4 = 4 \text{k}\Omega$, $V_1 = 10 \text{ V}$, $V_2 = 5 \text{ V}$, and $V_3 = 10 \text{ V}$, find

a. $V_{\text{out}}$

b. the power produced by each voltage source

![Circuit Diagram](image)