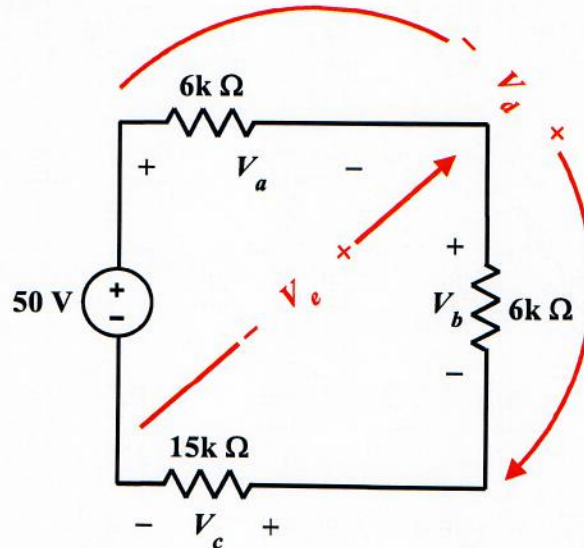


EE/EET 2240
Homework Problem #008



- a. Use the voltage divider equation to determine V_a .

$$V_a = \frac{6k\Omega}{6k\Omega + 6k\Omega + 15k\Omega} \cdot 50V = \frac{100}{9} V \approx 11.11V$$

- b. Use the voltage divider equation to determine V_b .

$$V_b = \frac{6k\Omega}{6k\Omega + 6k\Omega + 15k\Omega} \cdot 50V = \frac{100}{9} V \approx 11.11V$$

- c. Use the voltage divider equation to determine V_c .

$$V_c = \frac{15k\Omega}{6k\Omega + 6k\Omega + 15k\Omega} \cdot 50V = \frac{250}{9} V \approx 27.78V$$

- d. Determine the value of V_d .

$$V_d = -V_b - V_a = -\frac{200}{9} V \approx -22.22V$$

- e. Determine the value of V_e .

$$V_e = V_b + V_c = \frac{350}{9} V \approx 38.89V$$