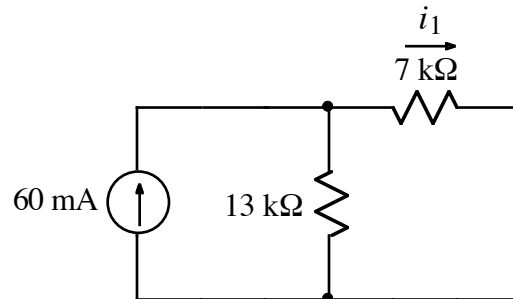
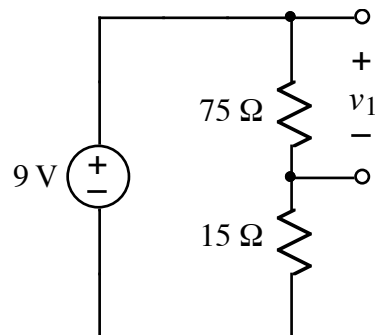


Ex:



- a) Use the current-divider formula to calculate
- i_1
- .



- b) Use the voltage-divider formula to calculate
- v_1
- .

SOL'N: a) The two resistors are in parallel across the current source. Current flows up through the current source and back down through the two resistors. The current-divider formula gives the value of i_1 :

$$i_1 = 60 \text{ mA} \cdot \frac{13 \text{ k}\Omega}{13 \text{ k}\Omega + 7 \text{ k}\Omega} = 39 \text{ mA}$$

- b) This is a standard voltage divider configuration.

$$v_1 = 9 \text{ V} \cdot \frac{75 \Omega}{75 \Omega + 15 \Omega} = 7.5 \text{ V}$$