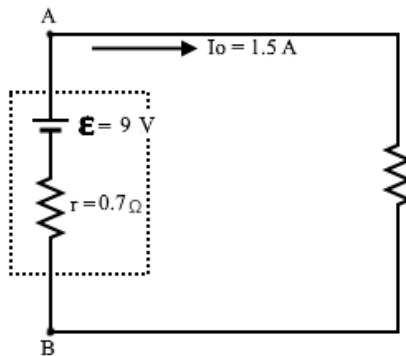


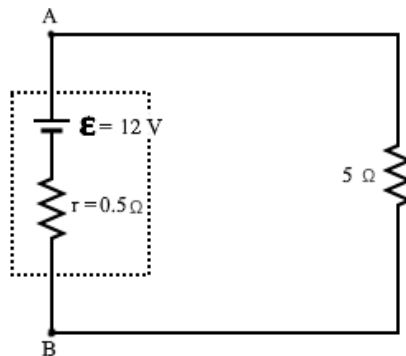
6.6 EMF

- 1) A battery in a remote control has an EMF of 1.5 V and an internal resistance of 0.3 Ω . If there is a current of 0.5 A running through the circuit, what is the terminal voltage of the battery? (1.35 V)
- 2) What is the EMF of a battery that has an internal resistance of 0.8 Ω and a terminal voltage of 10 V when a current of 2.4 A runs through it? (11.9 V)
- 3) A battery has an EMF of 9.0 V and an internal resistance of 0.50 Ω . What is the terminal voltage when it is connected to a circuit with a resistance of 4.0 Ω ? (8.0 V)

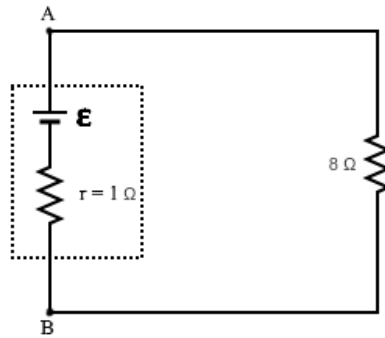
- 4) What is the terminal voltage of the battery in the circuit shown? (7.95 V)



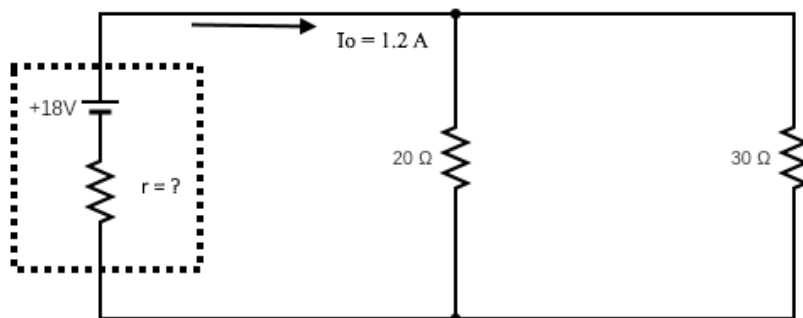
- 5) What is the terminal voltage of the battery in the circuit shown?(10.9 V)



6) If $V_{AB} = 16 \text{ V}$, what is the EMF of the following battery?(18 V)



7) Determine the internal resistance and the power dissipated by the internal resistance of the battery shown.(3 Ω , 4.3)



\mathcal{E}