Chapter-27

1. Calculate the power delivered to each resistor in the circuit shown in Figure



1. The following equations describe an electric circuit:

 -I1 (220 Ω) + 5.80 V - I2 (370 Ω) = 0

 +I2 (370 Ω) + I3 (150 Ω) - 3.10 V = 0

 I1 + I3 - I2 = 0

(a) Draw a diagram of the circuit. (b) Calculate the unknowns and identify the physical meaning of each unknown.

1. A 10.0-mF capacitor is charged by a 10.0-V battery through a resistance R. The capacitor reaches a potential difference of 4.00 V in a time interval of 3.00 s after charging begins. Find R.