PHYSICS 12 CIRCUITRY WORKSHEET 2

1. Calculate the effective resistance of each of the following branches of a circuit.

a)

b)

c)
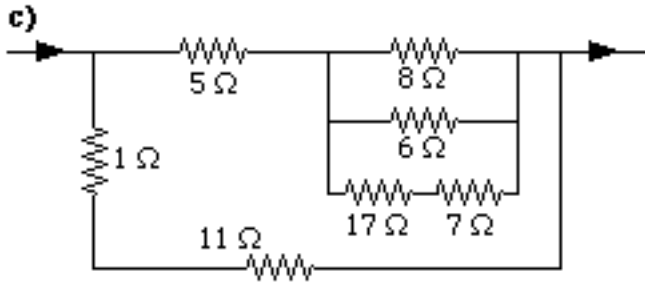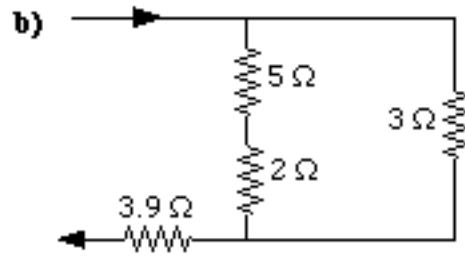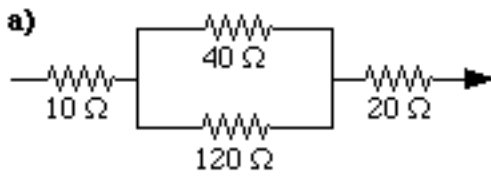
2. Determine the value of the indicated quantity for each of the following circuit branches.

a)
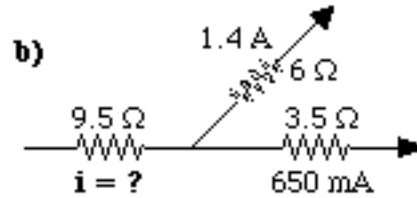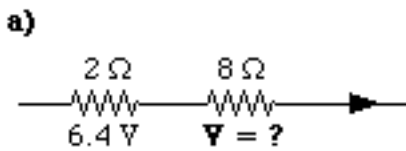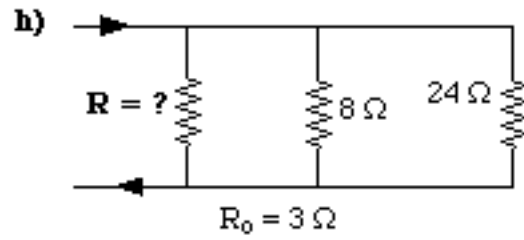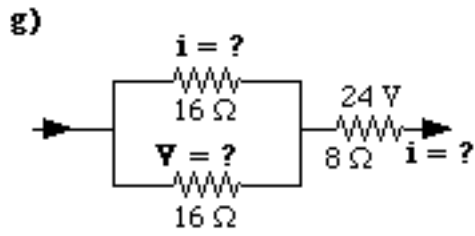

b)

c)

d)

e)

f)

g)

h)
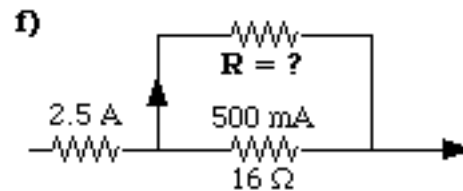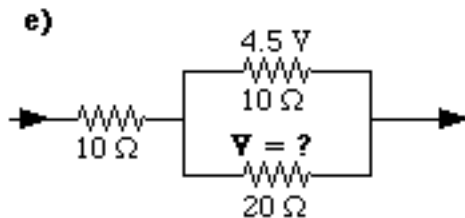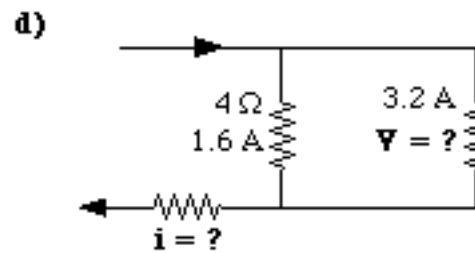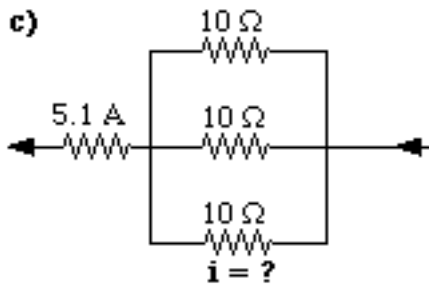
3. Two wires have a combined resistance of 10 Ω when in series and 2.4 Ω when in parallel. Find the resistance of each wire. (Hint: 2 equations, 2 unknowns)

1. a) 60 Ω b) 6.0 Ω c) 4.8 Ω   2. a) 25.6 V b) 2.05 A c) 1.7 A d) 4.8 A, 6.4 V e) 4.5 V f) 3.2 Ω g) 1.5 A, 24 V, 3.0 Ω
h) 6 Ω   3. 6.0 Ω, 4.0 Ω