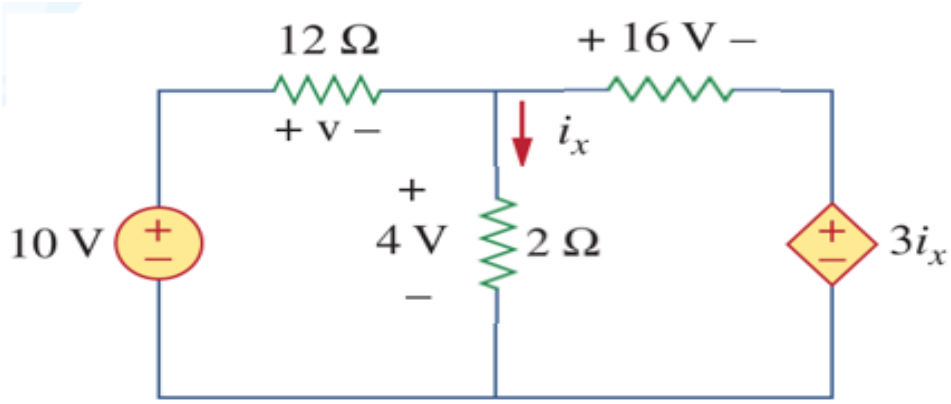
Homework （2th time）

1. Calculate the absorbed power of each resistor and the supplied power of each source in the circuit.



Answer:

For loop 1, –12 + v +2 = 0, v = **10 V**
For loop 2, –2 + 8 + 3i_x =0, i_x = **–2 A**

Time up

Answer Sheet
(4/4)

1. (25 scores)Find the power absorbed by each of the elementd in Figure 1.

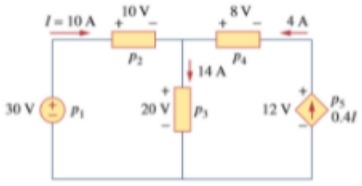


Figure 1

P1 = 30*(-10) =-300W
P2 = 10*10 = 100W
P3 = 20*14 = 280W
P4 = 8*(-4) = -32W
P5 = 12*(-0.4 * 10) = -48W

Time up

Answer Sheet
(4/4)

2. (25 scores)Find V0 and the power absorbed by each of the element in Figure 2.

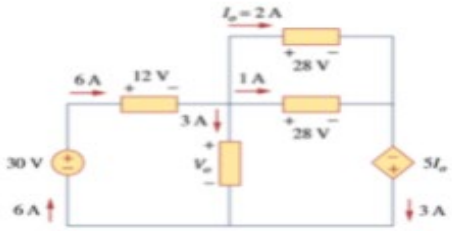


Figure 2

V0 = (30-12)V=18V
P1 = 30*(-6) = -180W
P2 = 12*6 = 72W
P3 = 18*3 = 54 W
P4 = 28*1 = 28 W

P5 = 28*2 = 56 W
P6 = 5 Io *(-3) =5*2*(-3)
=-30W

Time up

Answer Sheet
(4/4)

3. (25 scores) Find the power absorbed by each element in the circuit.

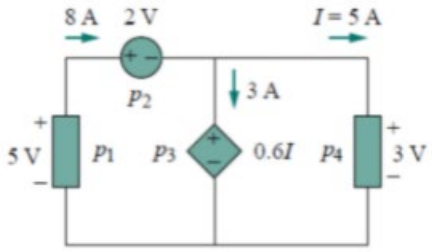


Figure 3

P1 = -40 W
P2 = 16 W
P3 = 9 W
P4 = 15 W

Time up

Answer Sheet
(4/4)

4. (25 scores)Determine the power supplied by the dependent sources.

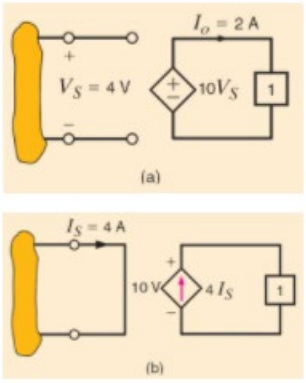


Figure 4

-80 W
160 W