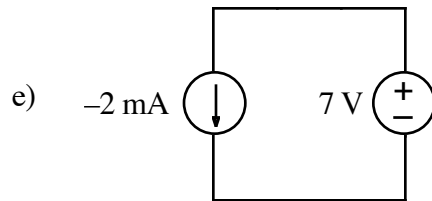
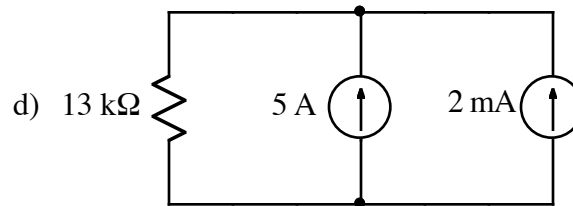
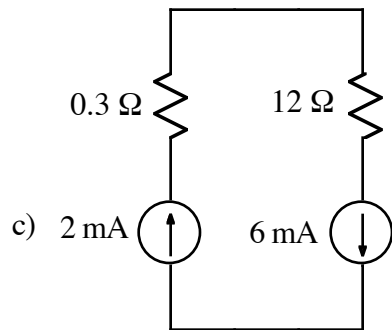
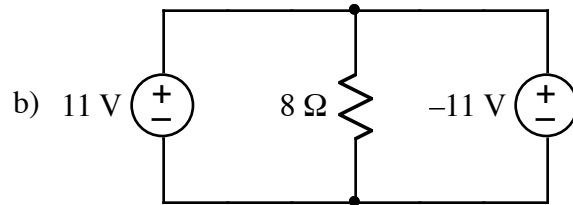
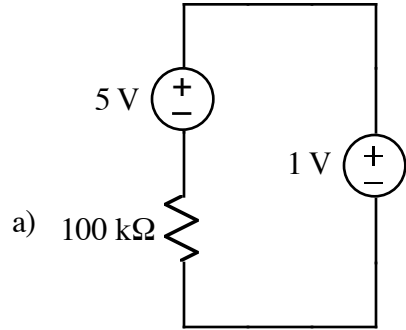
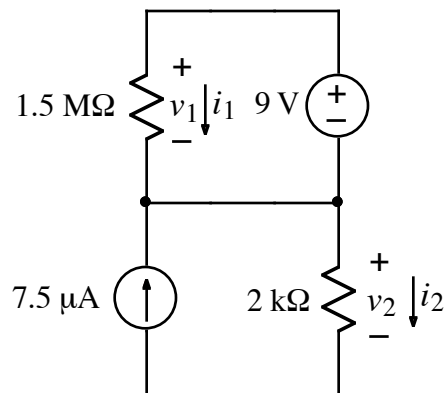


1. Determine whether each of the following circuits is valid or invalid.

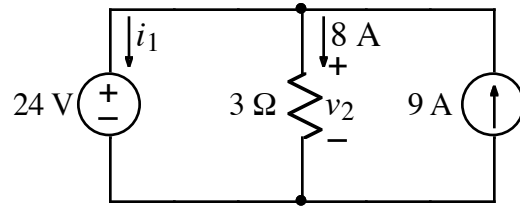


2.



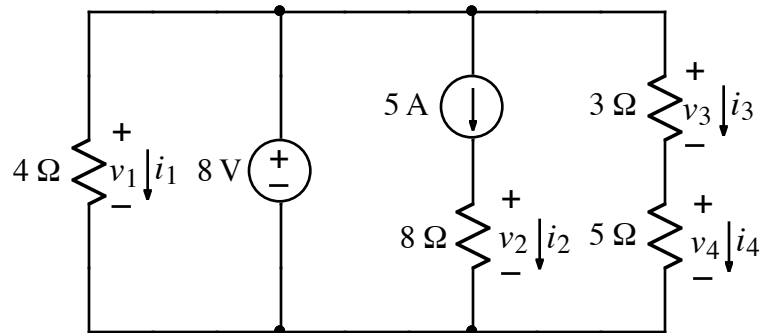
Use Kirchhoff's laws to find v_1 and i_2 .

3.



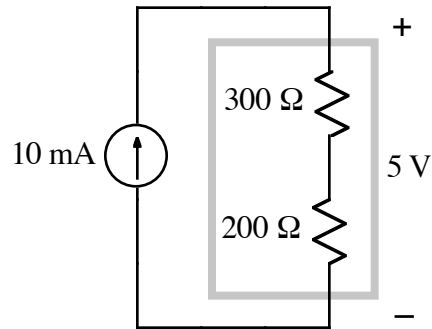
Use Kirchhoff's laws to find the value of i_1 and v_2 .

4.



- For the circuit shown above, use Kirchhoff's laws to write equations relating voltages and currents.
- Find the value of v_1 and i_2 .

5.



Find the total power dissipated by the components inside the box.