1.

![Circuit Diagram](image)

Find the value of total resistance between terminals a and b.

2.

![Circuit Diagram](image)

a) Use the current-divider formula to calculate $i_1$.

b) Use the voltage-divider formula to calculate $v_1$. 
3. Calculate $i_1$, $i_2$, and $v_0$.
   b) Find the power dissipated for every component, including the voltage source.

4. Calculate $i_1$, $i_2$, and $v_0$.

5. Find $i_x$, $v_1$, and the power dissipated by the dependent source.