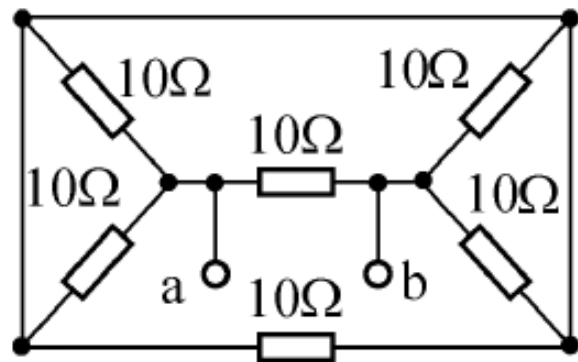




# 电路分析中的等效变换

## 习题讲解

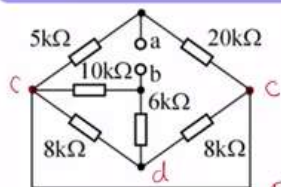
# 1. 试求a、b端子间的等效电阻



◆ 无源二端电阻网络

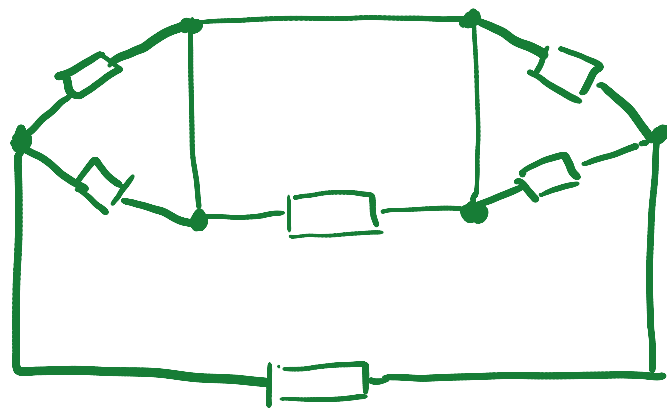
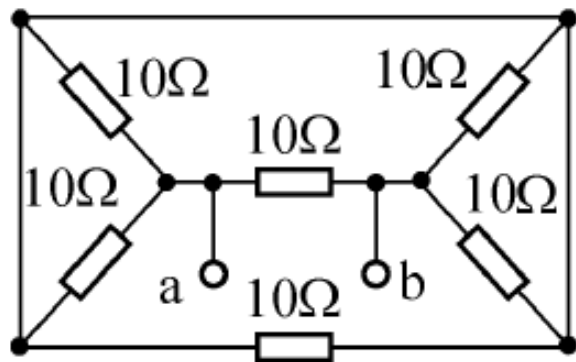
中国大学MOOC

【例】电路如图所示，试求等效电阻 $R_{ab}$ 。



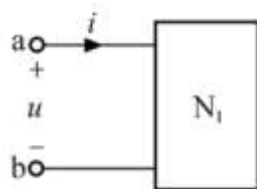
$$\begin{aligned}
 R_{ab} &= (5 \parallel 20) + [10 \parallel ((8 \parallel 8) + 6)] \\
 &= \frac{20 \times 5}{20 + 5} + 5 = 9 \text{ k}\Omega
 \end{aligned}$$

# 1. 试求a、b端子间的等效电阻

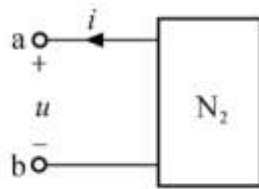


2. 已知题图所示二端网络 $N_1$ 、 $N_2$ 的伏安关系均为  $u = 4 + 3i$   
试分别作出其等效戴维南电路图。

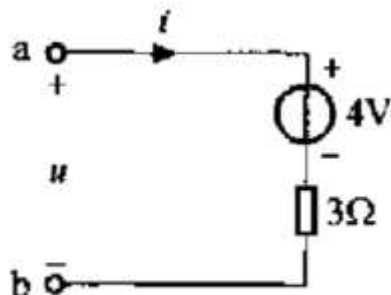
分析：戴维南模型



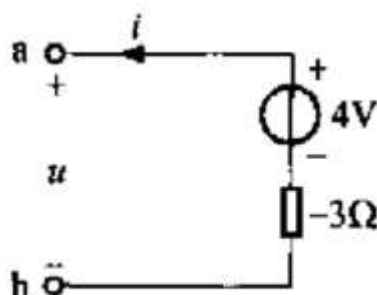
(a)



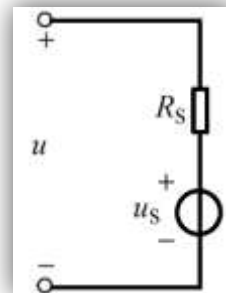
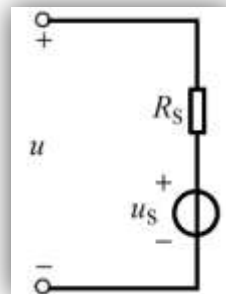
(b)



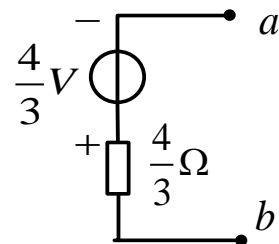
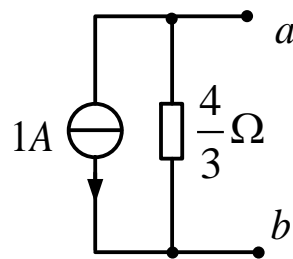
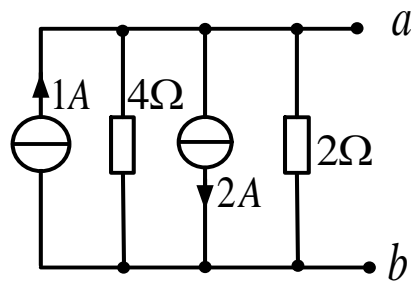
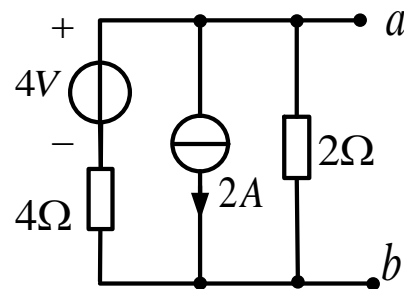
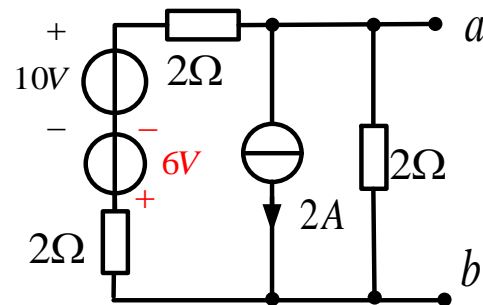
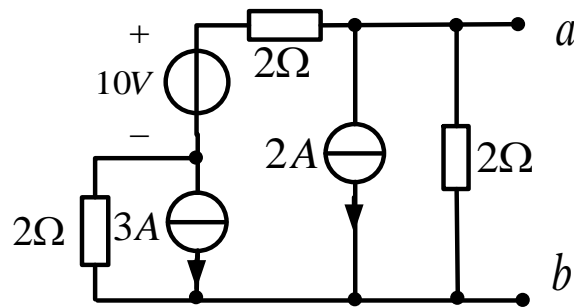
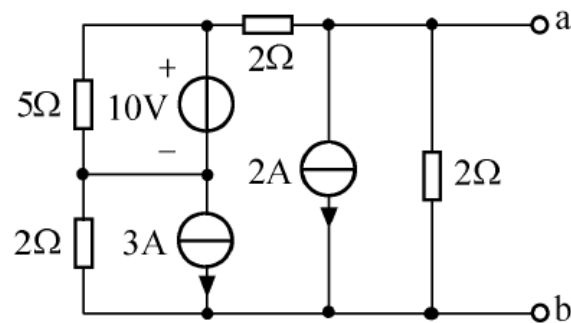
(a)



(b)



### 3. 化简题图所示电路为等效戴维南电路。



THE END