第1次习题课

准备好纸笔

把做题(过程)记录拿出来

全程开弹幕，大家有问题随时提出来，

习题课要搞明白才行

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前3讲要点回顾

- 参考方向
  - 关联/非关联
  - 求功率
- 元件
  - ***R***
  - 独立源
  - 受控源
- 拓扑
  - **KCL**
  - **KVL**
- 等效
  - 电阻
    - 串并联
    - 桥平衡
    - 星三角
    - 加压求流/加流求压
  - 电源
    - 理想
    - 实际

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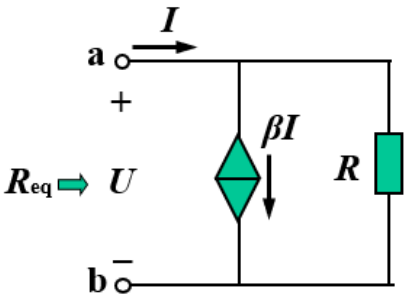
看你是不是把老师的话当话哈

求入端等效电阻 → 求端口上的电压电流关系$R_{eq}=U/I$ → 加压求流或加流求压



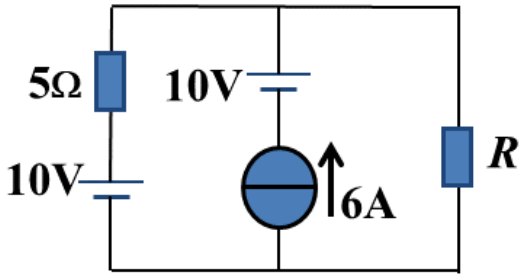
$$I=\beta I+\frac{U}{R}\longrightarrow U=R(1-\beta)I$$

$$R_{eq}=U/I=(1-\beta)R$$

思考：有没有含受控源二端网络加压求流无法求出R_{eq}的情况？

单选题 1分

*R*可获得的最大功率为__W



A 5

B 80

C 8

D 20

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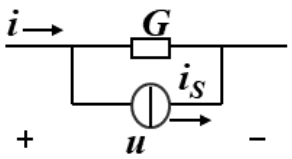
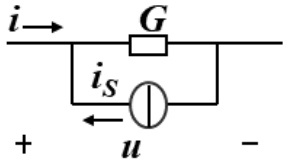
电路习题课（一）

1. 求下图各电路的 *u-i* 关系式及电源发出的功率。





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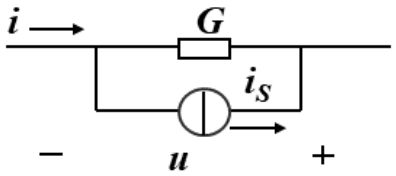

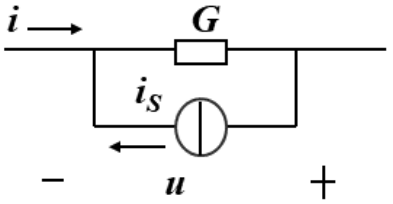

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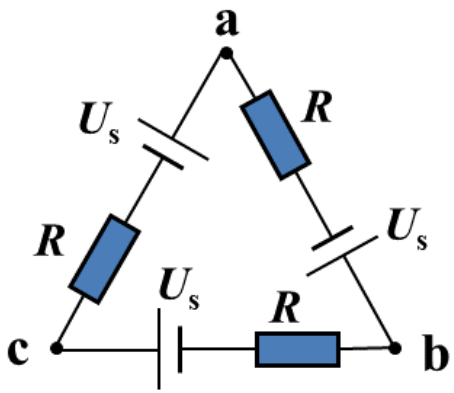
2. 求U_{ab}= _____



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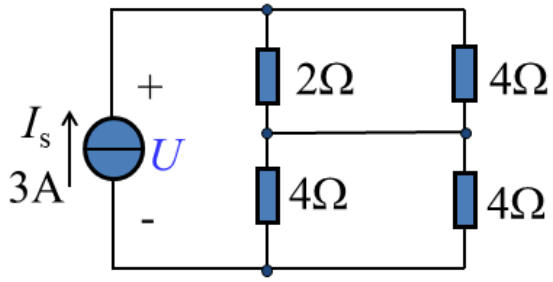
单选题 1分

U=___V

（最先答对的3位同学有红包）



A 3

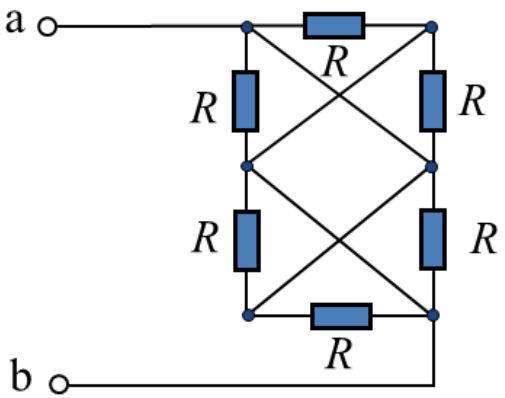
B 10

C 18

D 24

单选题 1分

R_{ab}=____



A R

B $6R$

C $R/6$

D $R/3$

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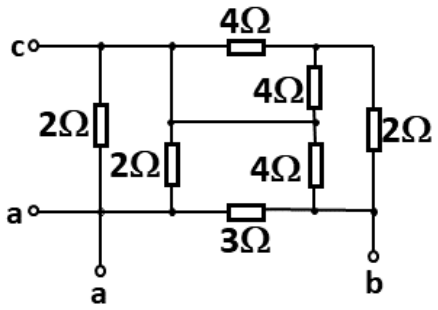
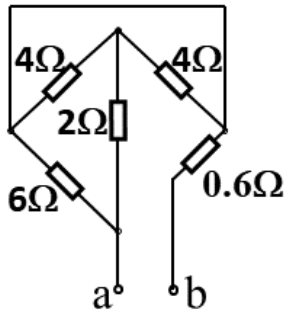
3. 求 R_{ab} (和 R_{ac}).





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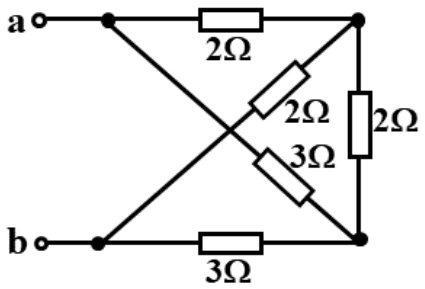

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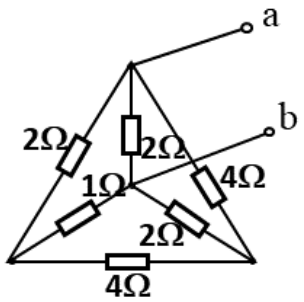

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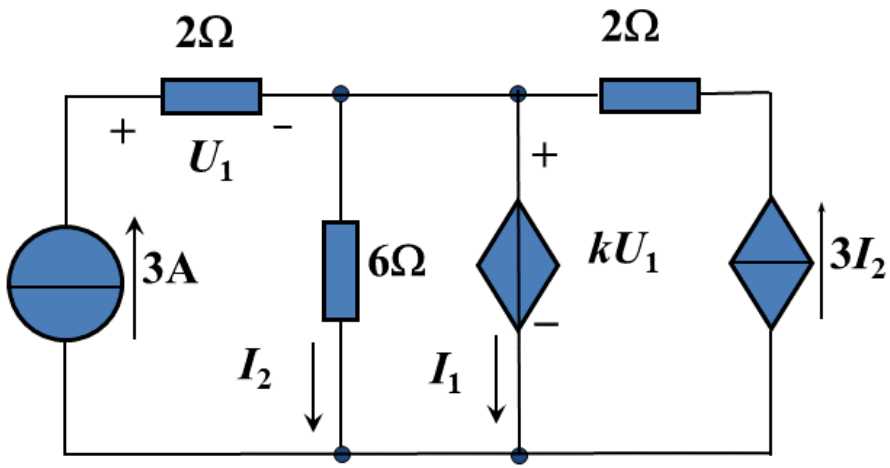
4. 当 $k=2$时，求 I_1.



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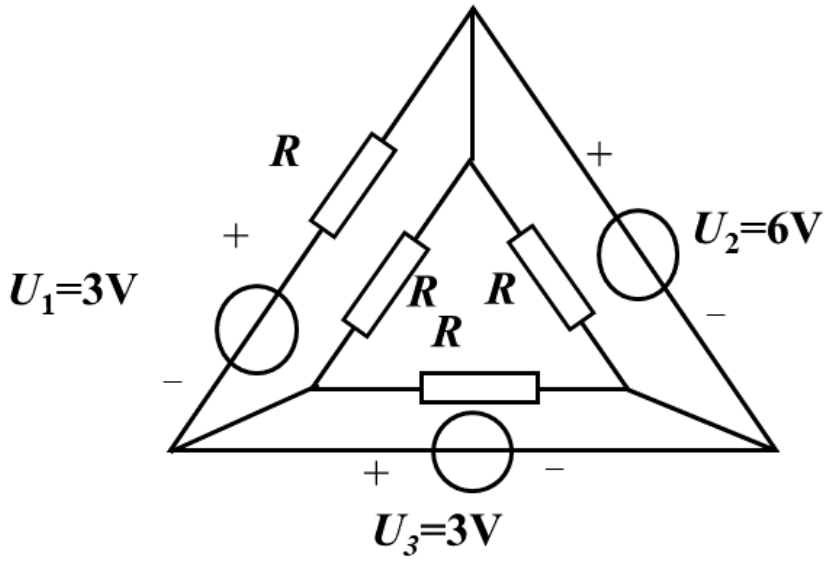
求各电压源发出的功率，$R=1\Omega$。



欢迎投稿

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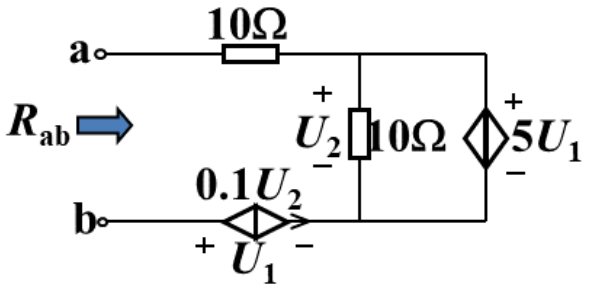
5. 求入端电阻 R_{ab} .



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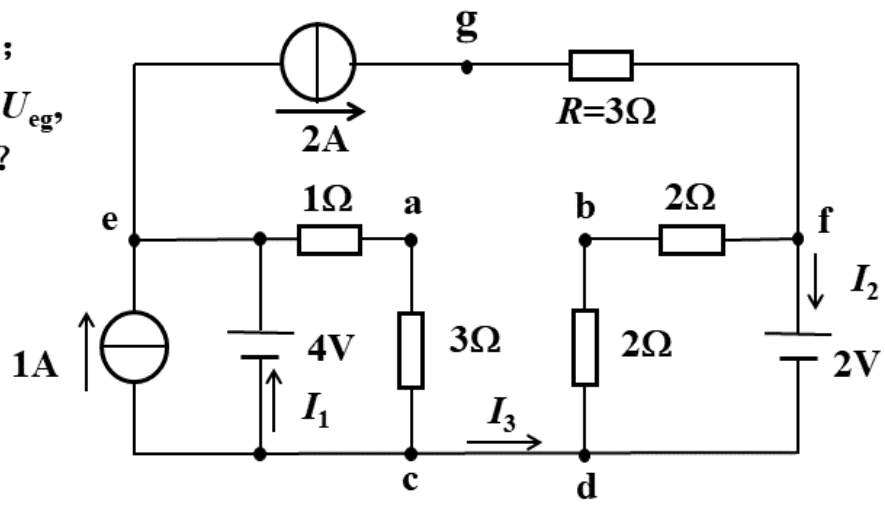
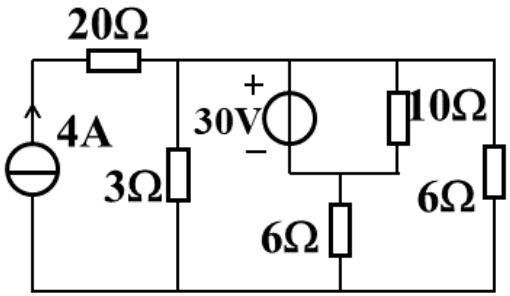
6. (1) 求 $I_1, I_2, I_3, U_{ab}, U_{eg}$;

(2) 若 R 变为 5Ω， 问 U_{eg}, I_1 和 I_2 如何变化？



7. 求每个电源发出的功率.



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