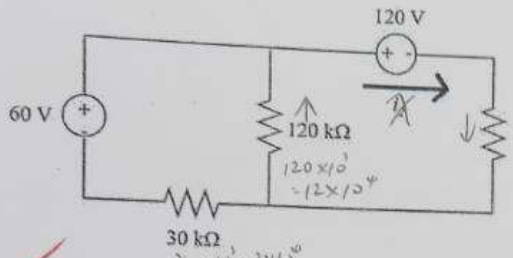
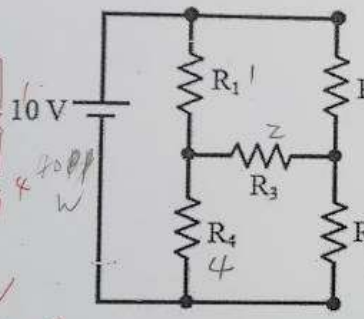
12. 如下圖所示電路，求電流 i_2=□.□□ × 10^□ 安培（amp）Find i_2



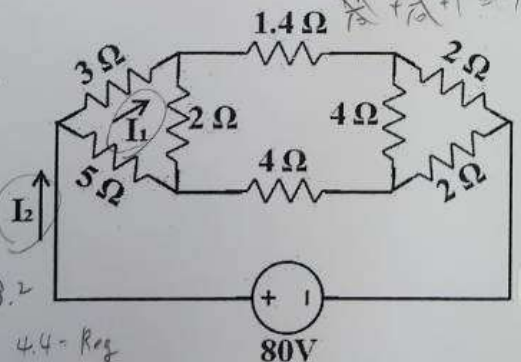
13. 如下圖所示，R_1=1Ω，R_2=1Ω，R_4=4Ω，R_5=4Ω，R_3=2Ω，

R_5所消耗的功率=□.□□ × 10^□ 瓦特（Watt）(Power Dissipated by R_5 Resistor)

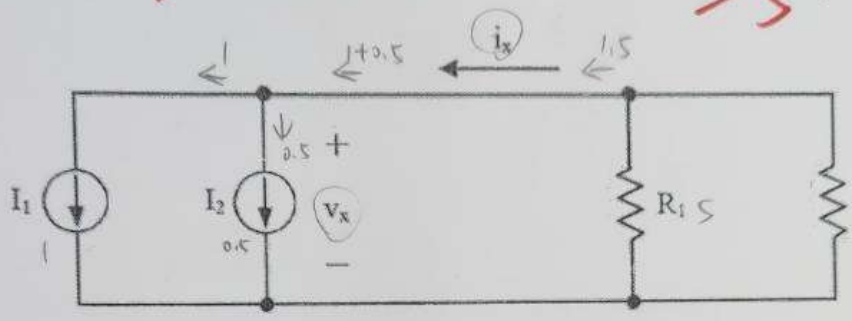


14. 下圖中流經 3 歐姆電阻之電流 I_1=□.□□ × 10^□ 安培（amp），

I_2=□.□□ × 10^□ 安培（amp）Find I_1 and I_2

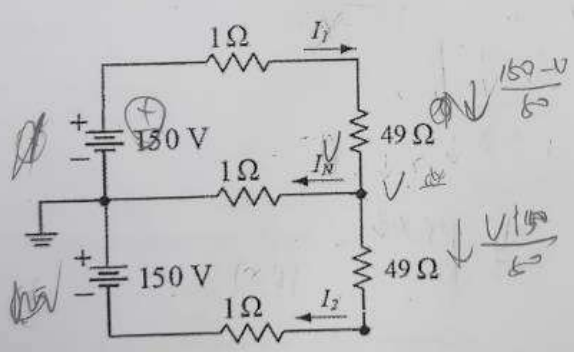


6.如下圖所示，I_1=1A，I_2=0.5A，R_1=5Ω，R_2=2Ω，試求電流 i_x=[illegible]安培（amp），電壓 V_x=[illegible]伏特(volt) Find i_x and V_x

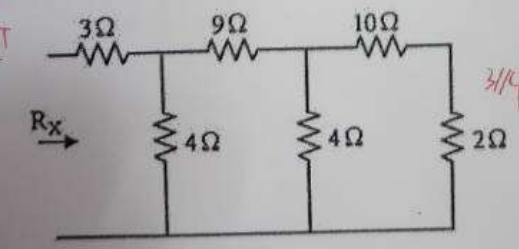


7.如下圖所示，試求電流 I_1=[illegible]安培（amp），

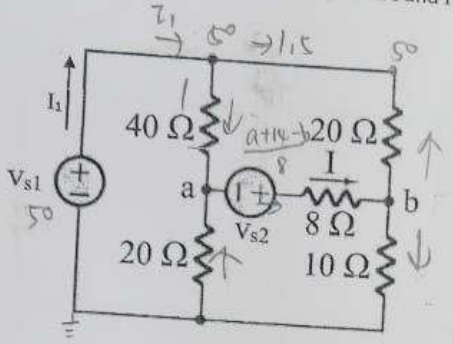
I_N=[illegible]安培（amp）Find I_1 and I_N



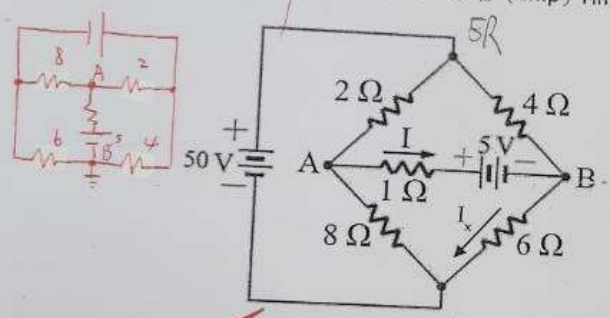
8.如下圖示電路，等效電阻 R_x=[illegible] Ω Find R_x



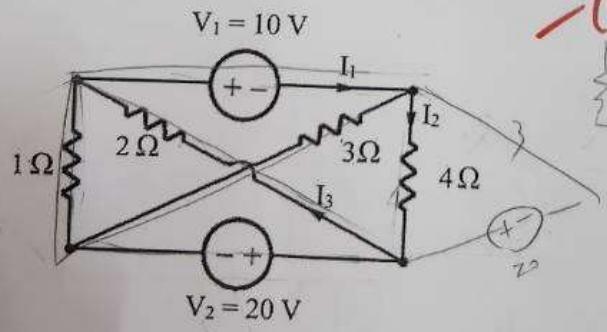
3.如下圖所示，V_{s1}=50V，V_{s2}=14V，試求電流 I= 5.00 × 10^{0} 安培（amp），
I_1= 2.50 × 10^{0} 安培（amp）Find I and I_1



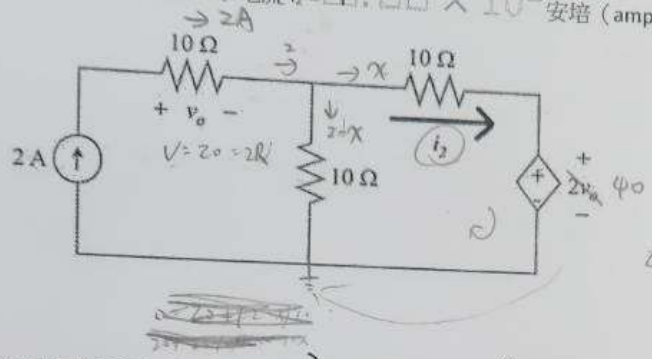
4.如下圖所示，試求電流 I= 3.00 × 10^{0} 安培（amp），
I_x= 2.00 × 10^{0} 安培（amp）Find I and I_x



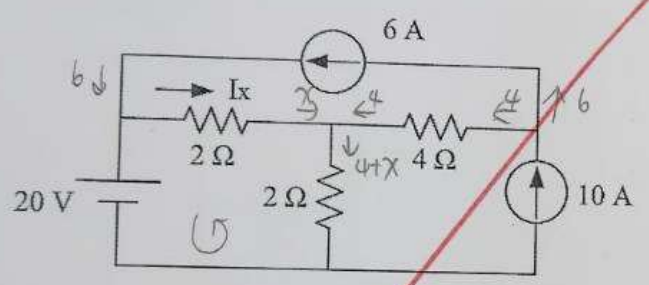
5.如下圖所示電路，求 I_1= 3.00 × 10^{0} 安培（amp），I_3= 2.00 × 10^{0} 安培（amp）Find I_1 and I_3



9.如下圖所示電路，求電流 i_2 = [-1.00] × 10^{0} 安培（amp）Find i_2

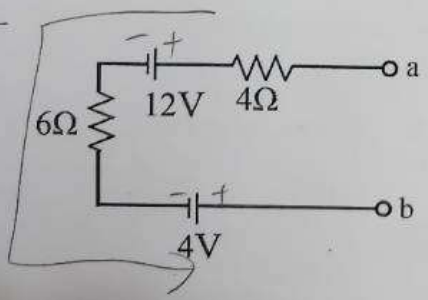


10.如下圖所示，試求電流 I_x= [3.00] × 10^{0} 安培（amp）Find I_x

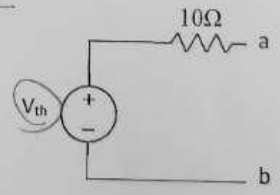


11. (圖二)為(圖一)之戴維寧等效電路，則 V_{th}= [8.00] × 10^{0} 伏特(Volt)(The following two circuits are equivalent, fine V_{th})

圖一



圖二



所有答案請以科學符號表示，例如：

計算出來的答案為$\frac{1}{3}$，則填寫3.33×10^{-1}(科學符號的小數第三位，四捨五入進第二位)，

計算出來的答案為$-\frac{2}{3}$則填寫-6.67×10^{-1}(科學符號的小數第三位，四捨五入進第二位)

計算出來的答案為 7，則7.00×10^{0}

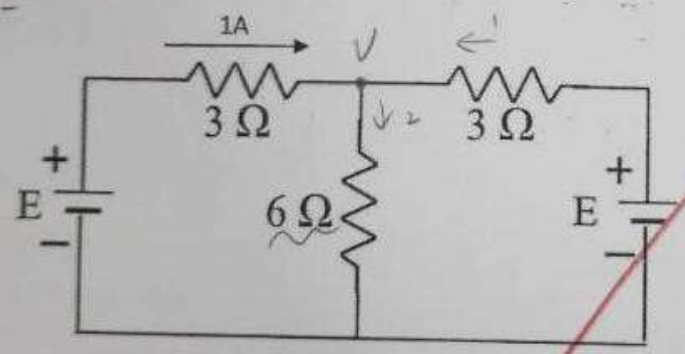
計算出來的答案為−7，則-7.00×10^{0}

計算出來的答案為 70，則7.00×10^{1}

如還不知道怎麼填寫答案，請詢問監考人員

答案以原子筆填寫，每個答案五分

1.下圖電路中 6 歐姆電阻的消耗功率=[2].[40] × $10^{[1]}$ 瓦特（Watt）(Power Dissipated by a 6 Ω Resistor)



1+1=2A

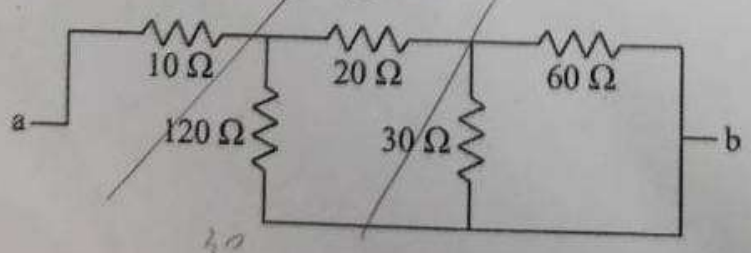
$P=I^2R$

$=2^2 \times 6$

$=4 \times 6$

$=24$

2.如下圖所示，ab 兩端等效電阻=[4].[00] × $10^{[1]}$ Ω(Resistor between a and b)



(30//60) = 20

$\frac{1}{60} + \frac{1}{60}$

20+20=40

(40//120) = 30

30+10=40

~~30+40~~

30

20

$\frac{31}{120} + \frac{1}{120}$

$\frac{120}{4}$