學號：41108703H　　姓名：黃廷瑋

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}

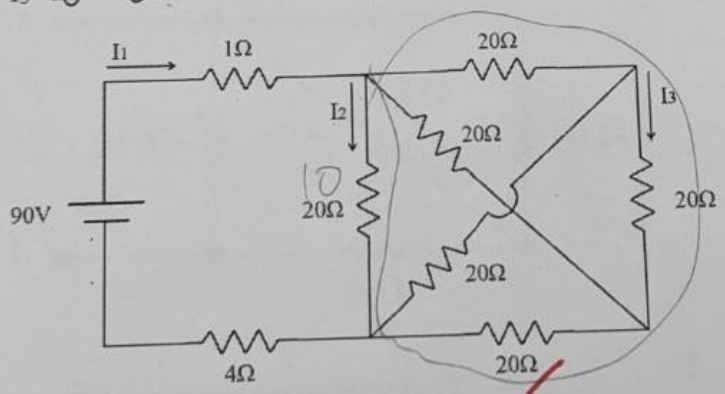
計算出來的答案為-7，則-7.00×10^{0}

計算出來的答案為 70，則7.00×10^{1}

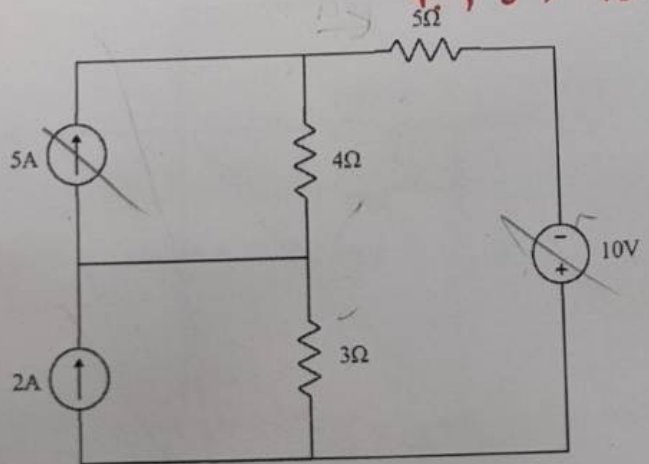
如還不知道怎麼填寫答案，請詢問監考人員，答案以原子筆填寫，每個答案五分

求下圖中電流 I_1=6.00 $\times 10^{0}$ 安培，I_2=3.00 $\times 10^{0}$ 安培，

I_3=0.00 $\times 10^{0}$ 安培

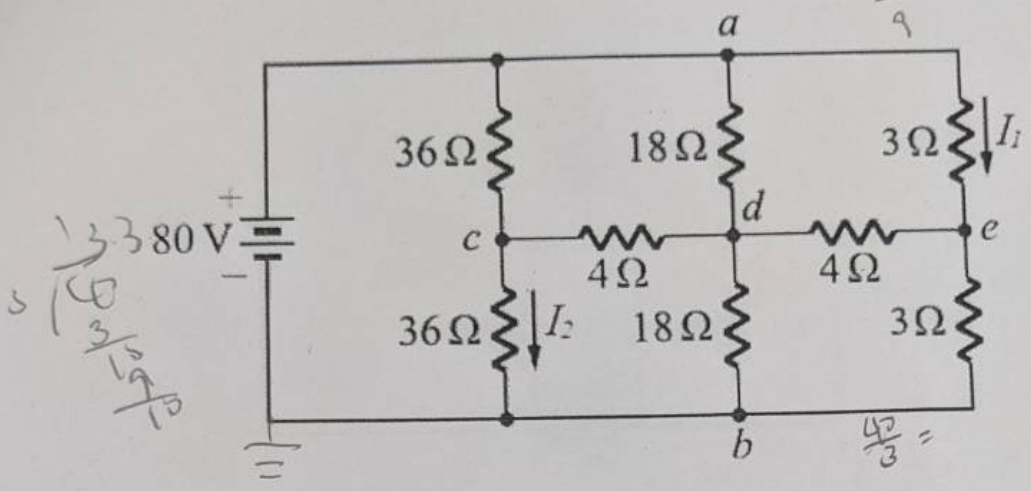


圖中 5Ω電阻消耗的功率為 3.00 $\times 10^{0}$ 瓦特

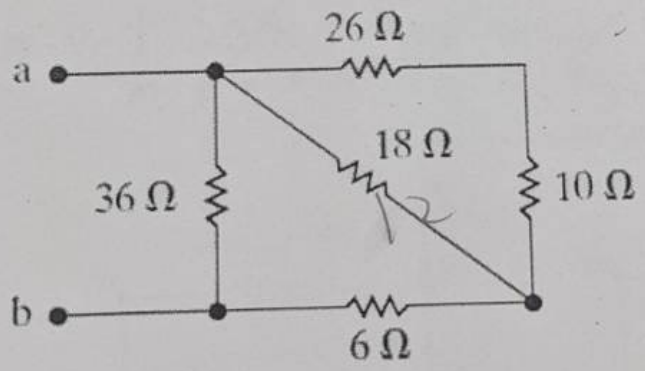


如下圖所示之電路，電路中 I_1=□.33 × 10□ 安培，

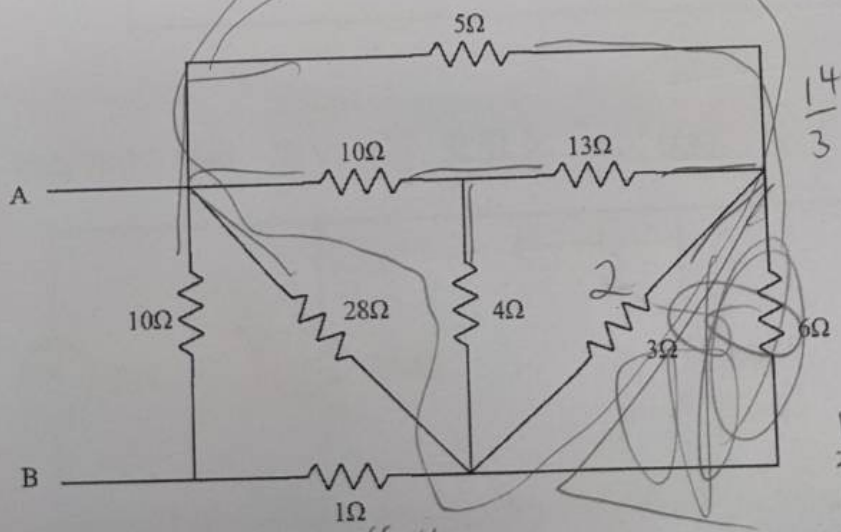
I_2=□.□□ × 10□ 安培



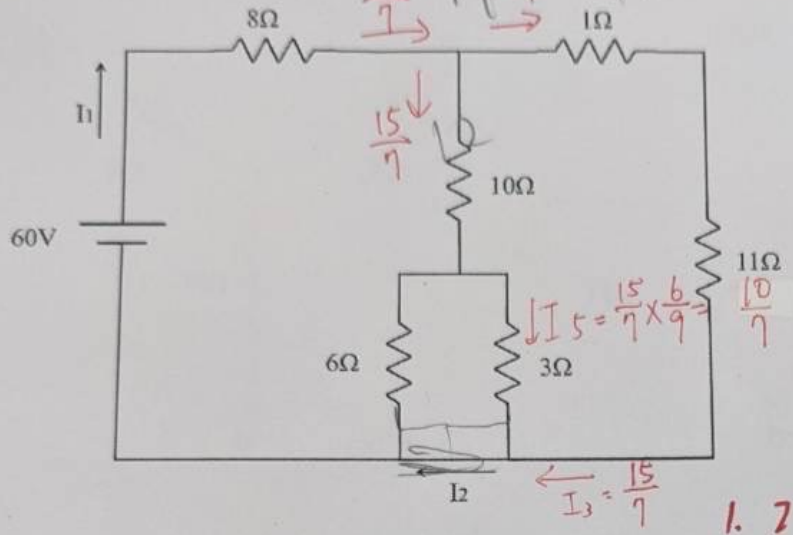
如下圖所示的電路，a、b 兩端所看到的等效電阻為□.□□ × 10□ Ω



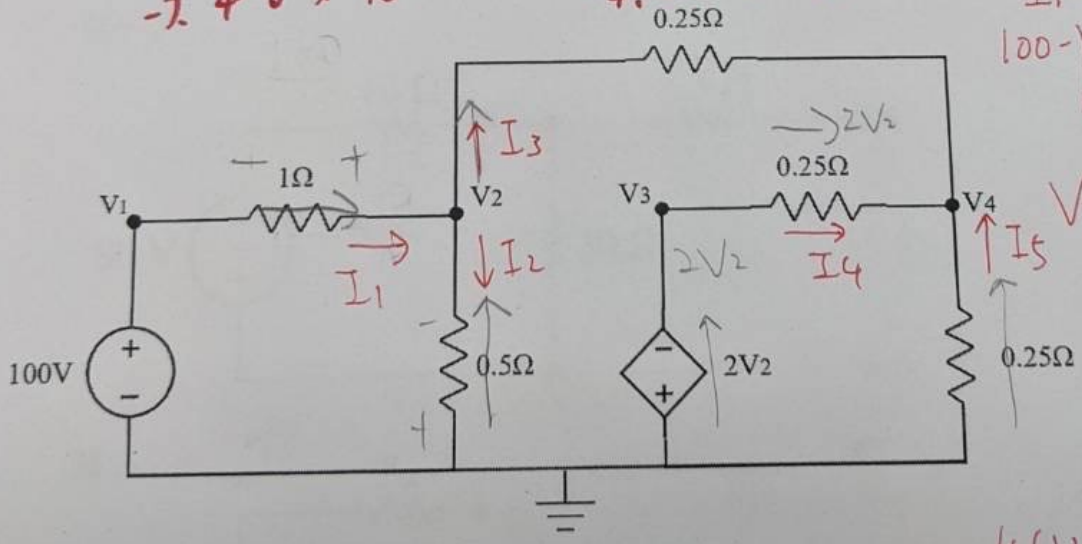
求下圖中 AB 兩端的等效電阻為 3.33 × 10□ Ω



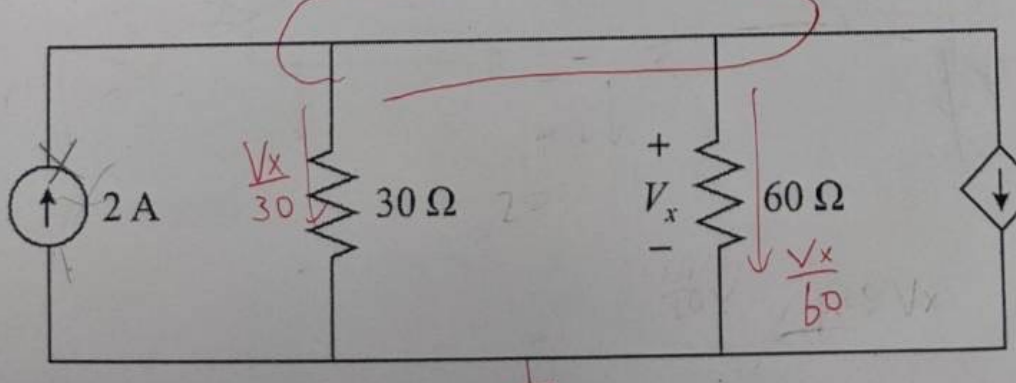
下圖中電流 I_1= 4.28 × 10^0 安培，短路電流 I_2= 0.00 × 10^0 安培



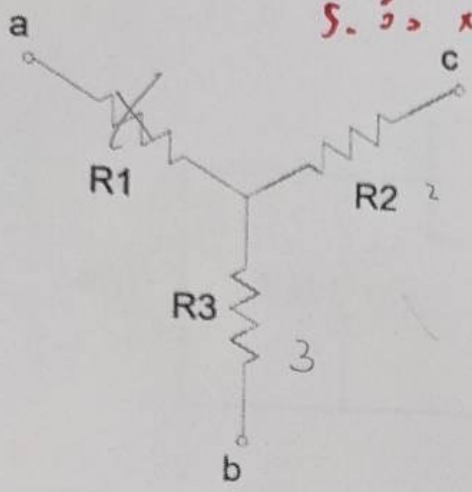
求電路中的電壓 V_1= 1.00 × 10^2 伏特、V_2= 6.67 × 10^1 伏特、V_3= -1.23 × 10^2 伏特、V_4= -4.00 × 10^0 伏特

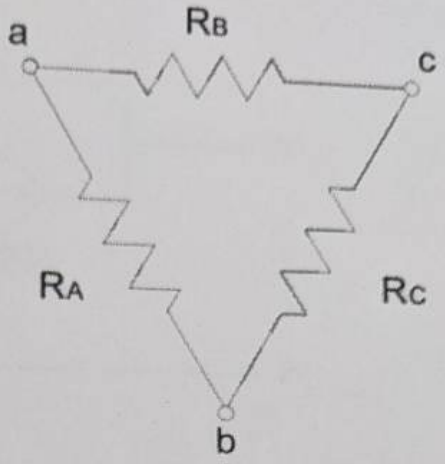


如圖所示之電路，求 V_x= 2.00 × 10^1 伏特



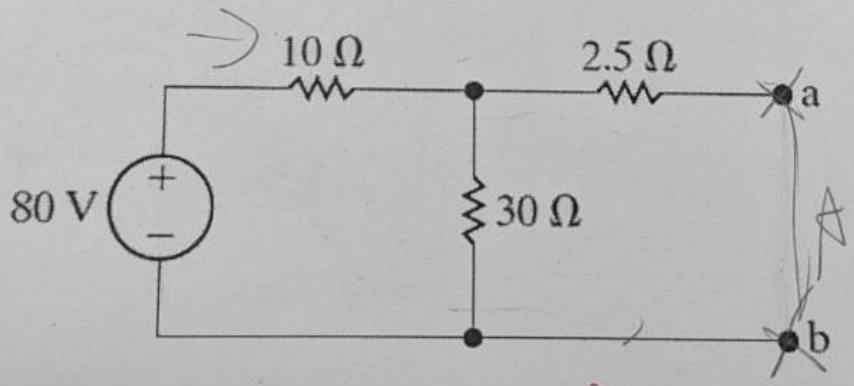
如下圖所示為等效的 Y 型和 Δ 型電路，假設 R1 開路，R2 為 2 歐姆（Ω），R3 為 3 歐姆，求 R_C= 5.00 × 10^0 Ω



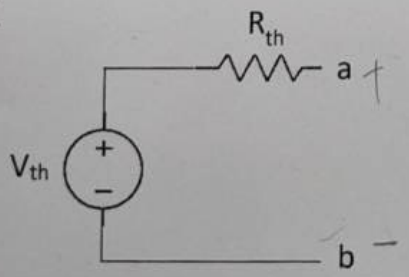


如下圖一所示的電路可以等效為圖二戴維寧電路，求 a、b 兩端的等效電壓 V_{th}= 6.00 × 10^1 伏特及等效電阻 R_{th}= 1.00 × 10^1 Ω

圖一



圖二



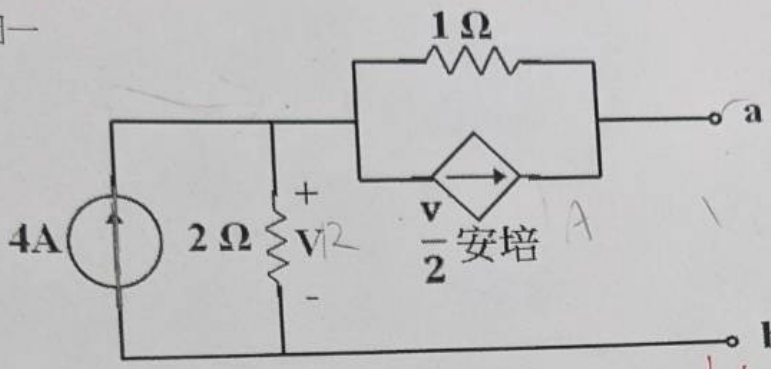
(下頁尚有試題)

下圖一中的電路可以諾頓等效電路簡化為圖二中的電路，

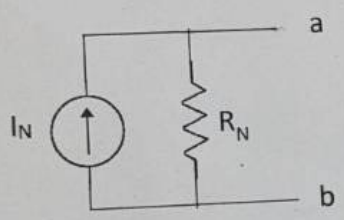
則 I_N 為□.□□ × $10^{□}$ 安培 ，R_N 為□.□□ × $10^{□}$ Ω。

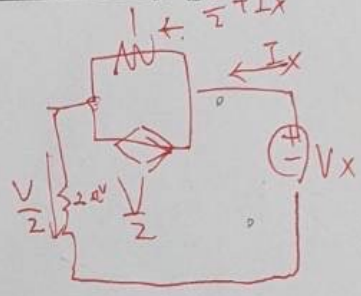
3.00 × 10^{0}　　4.00 × 10^{0}

圖一

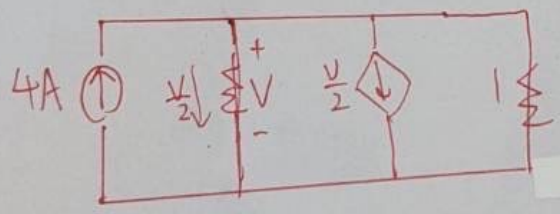


圖二





$\frac{V}{2}+I_x=\frac{V}{2}+\frac{V}{2}$ — ①



$V_x=V+\frac{V}{2}+I_x$ — ②

$I_x=\frac{V}{2}$

$4=\frac{V}{2}+\frac{V}{2}+V$

$V=2V$

$I_N=\frac{3}{2}V=3A$

18

學號：411187031　　姓名：李科漢

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)

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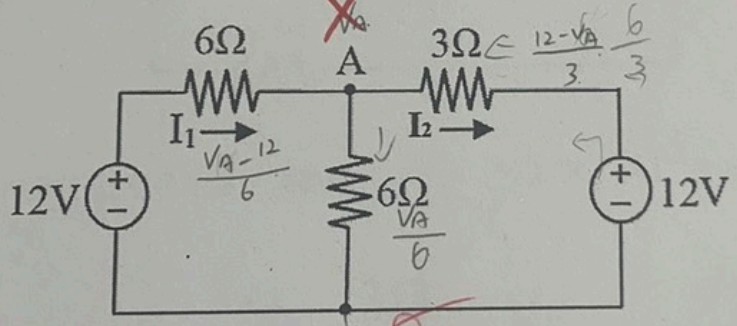
計算出來的答案為 70，則7.00×10^{1}

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

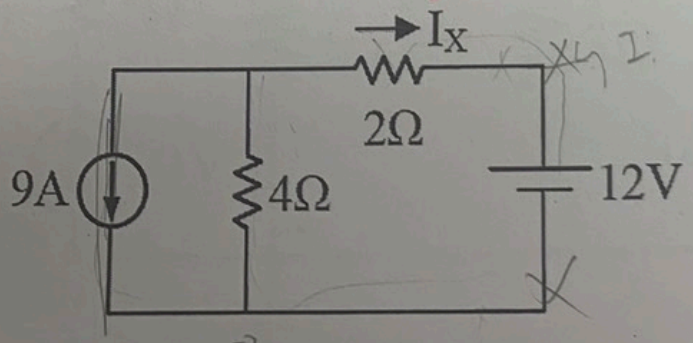
10

1.下圖電路中電流 I_1=[1].[00]$\times 10^{0}$安培與電流 I_2=[-1].[00]$\times 10^{0}$安培

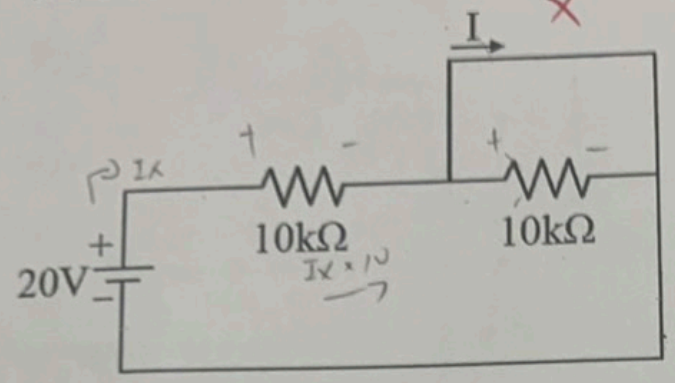


-5

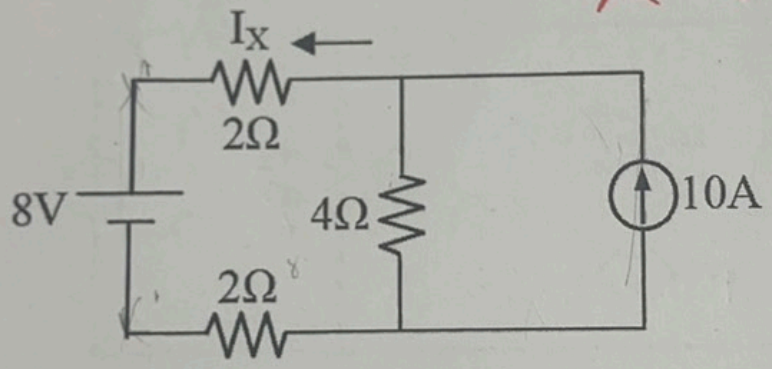
2.如下圖所示，試求電流 I_x=[4].[00]$\times 10^{0}$安培



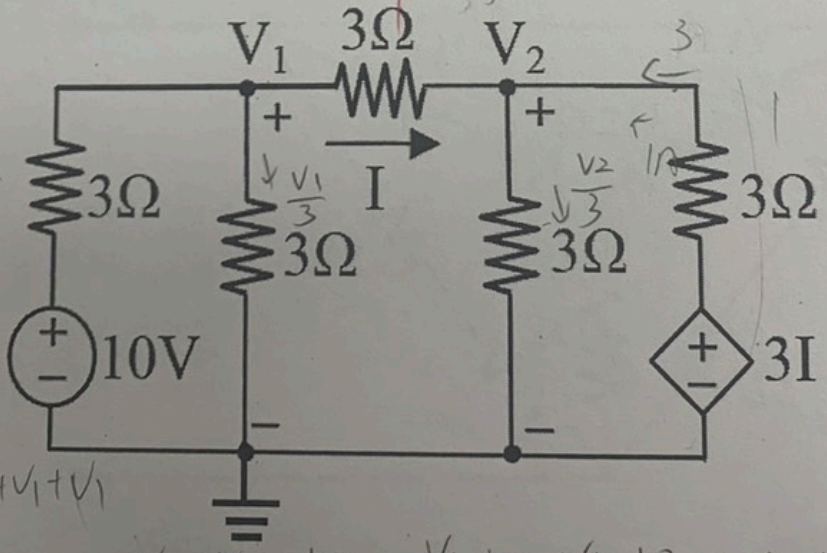
3.如下圖所示，試求電流 I=□.□□ × 10□安培



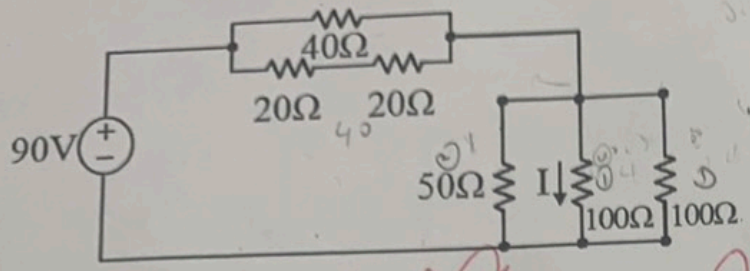
4.如下圖所示，試求流經 2 歐姆電阻的電流 I_x=□.□□ × 10□安培



5.如下圖所示電路，求電壓 V_1=□.□□ × 10□伏特，V_2=□.□□ × 10□伏特

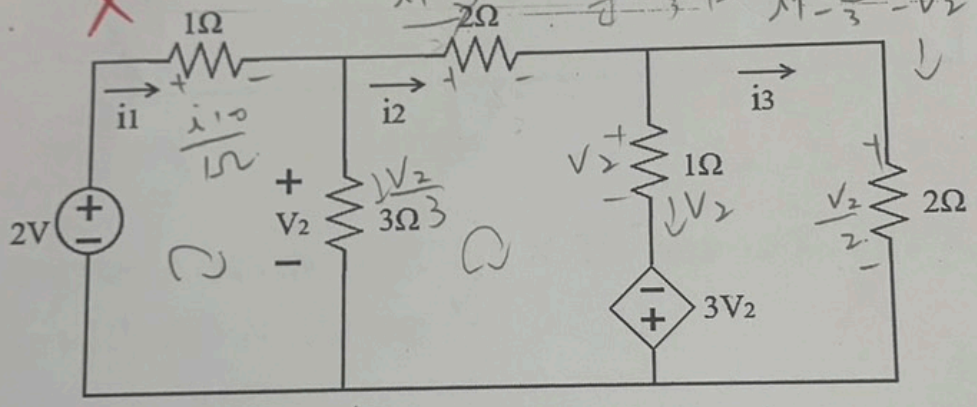


6.如下圖所示，試求電流 I= [5.00] × $10^{\square}$ 安培

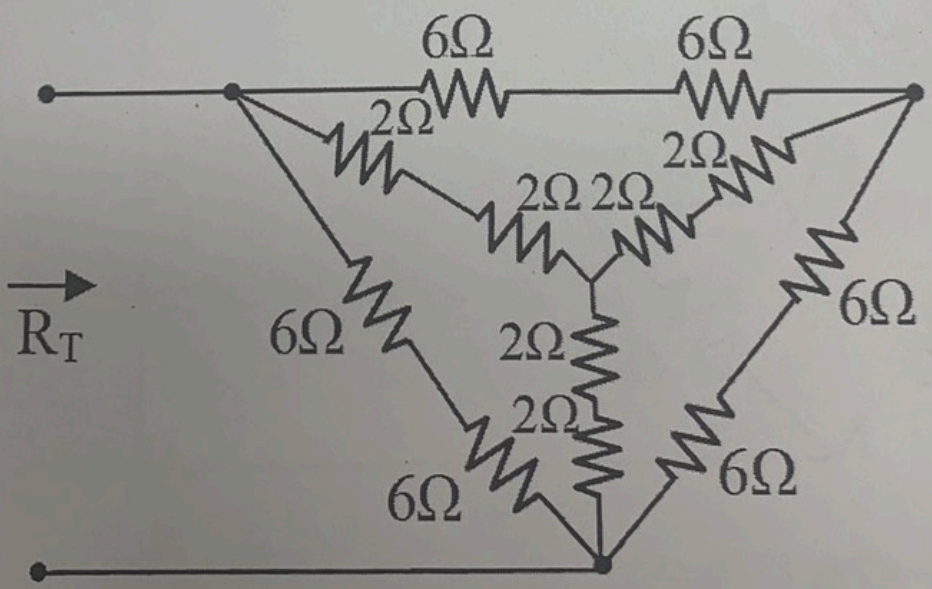


7.如下圖所示，試求電流 i_1= [ ].[ ][5] × $10^{\square}$ 安培，i_2= [ ].[6][7] × $10^{\square}$ 安培，

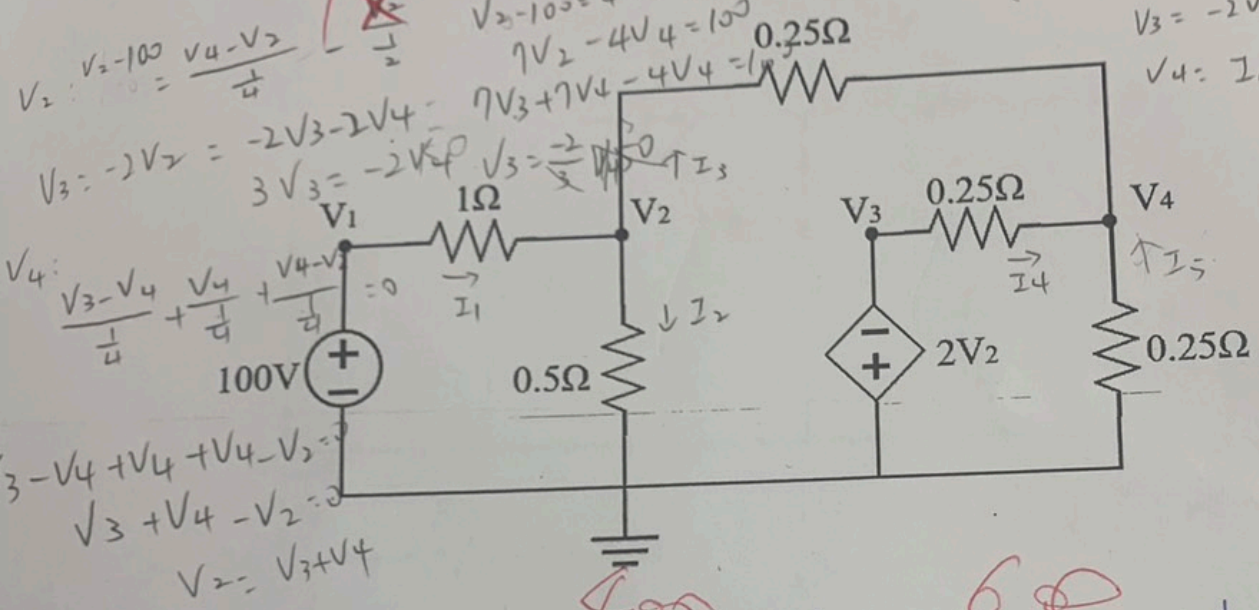
i_3= [ ].[4][0] × $10^{\square}$ 安培



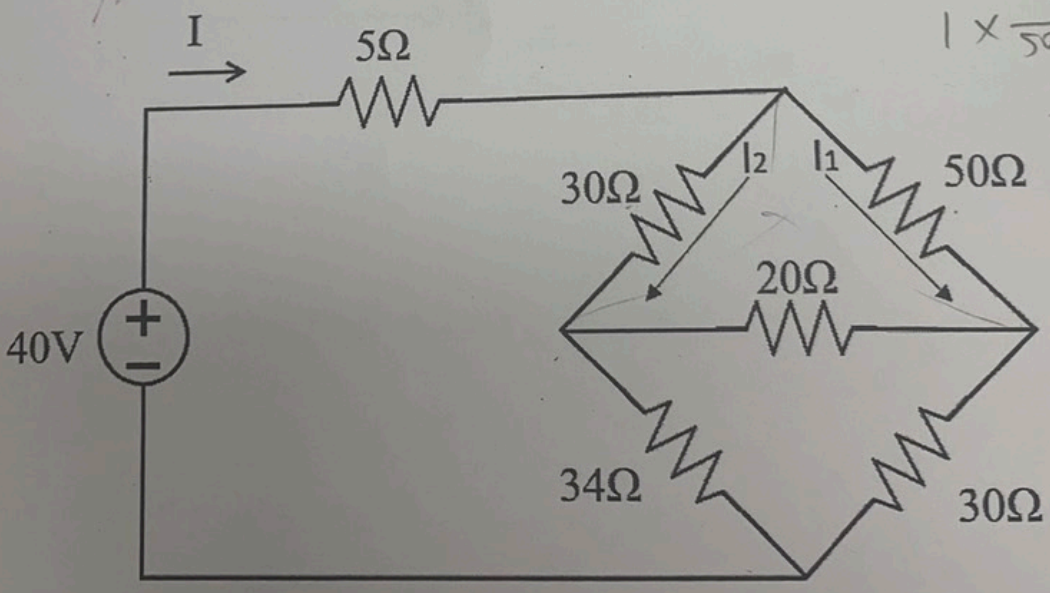
8.如下圖示電路，等效電阻 R_T = [4.00] × $10^{\square}$ Ω

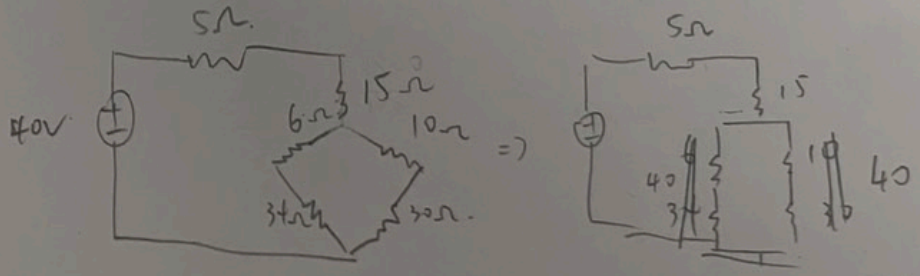


9.如下圖所示電路，求電壓 V_2=□.□□ × $10^{□}$ 伏特，V_3=□.□□ × $10^{□}$ 伏特，V_4=□.□□ × $10^{□}$ 伏特



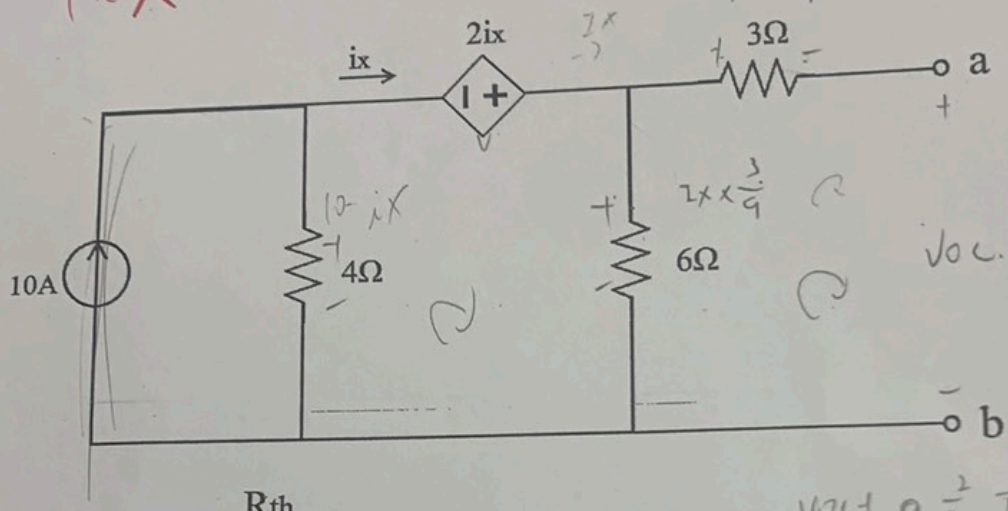
10.如下圖所示，試求電流 I_1=□.□□ × $10^{□}$ 安培，I_2=□.□□ × $10^{□}$ 安培，I=□.□□ × $10^{□}$ 安培



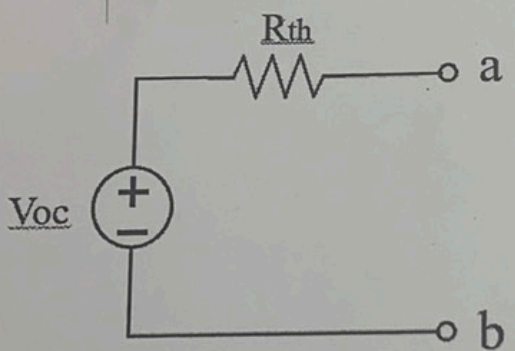


11.(圖二)為(圖一)之戴維寧等效電路，則 V_{oc}= [ ][ ].[ ][ ] × $10^{[ ]}$ 伏特，

R_{th}= [ ][ ].[ ][ ] × $10^{[ ]}$ Ω



(圖一)



(圖二)