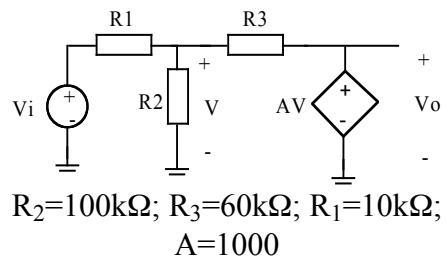
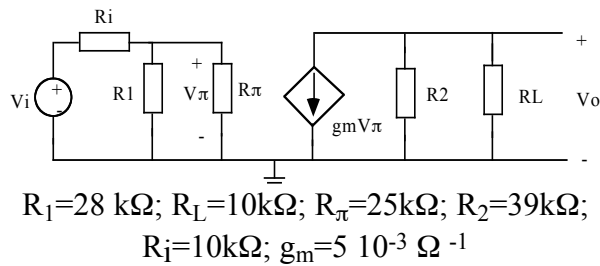
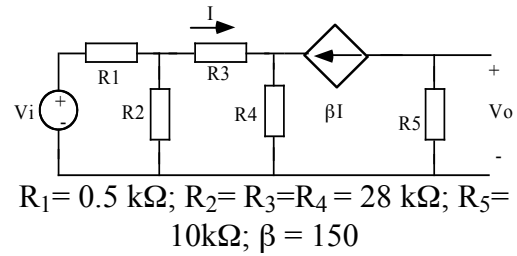
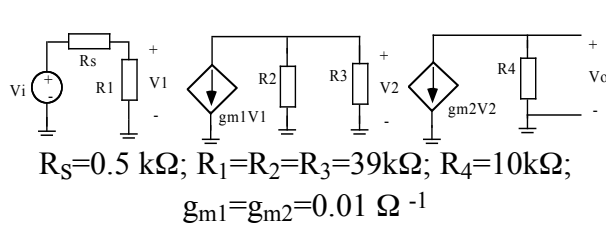


TEORIA DE CIRCUITS

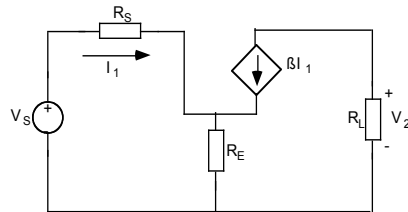
1^{er} Curs d'Enginyeria Electrònica Industrial i Automàtica.

FULL DE PROBLEMES 3

1. Determinau V_o en els circuits següents :

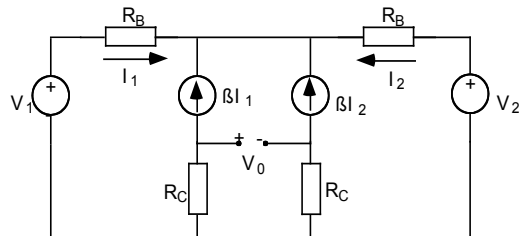


2. Determinau el guany de tensió V_2/V_s en el circuit.

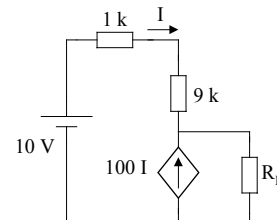


3. Calculau V_o al circuit.

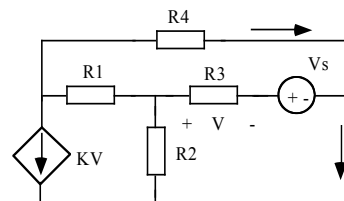
$\beta = 50$; $R_B = 1 \text{ k}\Omega$; $R_C = 5 \text{ k}\Omega$; $V_1 = 1 \text{ V}$; $V_2 = 2 \text{ V}$



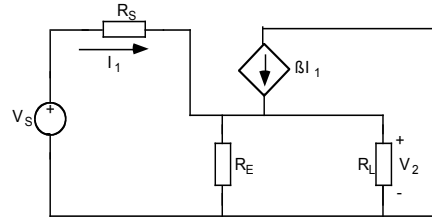
4. Que ha de valer R_L si volem que $I = 100 \text{ }\mu\text{A}$?



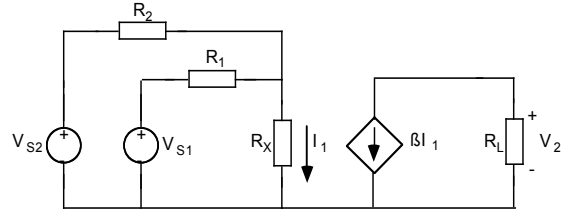
5. Determinau els corrents que atravessen R_4 i la branca dreta del circuit de la figura.



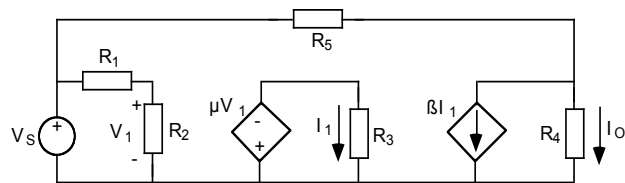
6.- Determinau el guany de tensió V_2/V_s per el circuit següent.



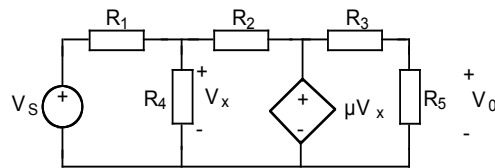
7. Demostrau que $V_2=b(K_1V_{S1}+K_2V_{S2})$ al circuit següent. Determinau K_1 i K_2 .



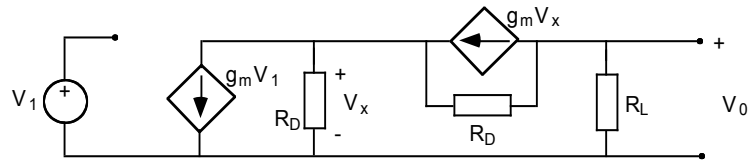
8. Calculau I_0 en el circuit
 $R_1=1k\Omega$; $R_2=2k\Omega$; $R_3=3k\Omega$;
 $R_4=4k\Omega$; $V_s=1V$; $K=5$.



9. Calculau V_0 en el circuit



10. Calculau V_0 en el circuit

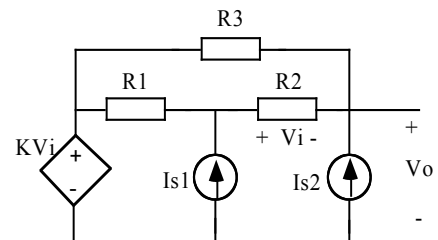


11. Calculau el valor de V_0 en el circuit de la figura

a) Expressió analítica.

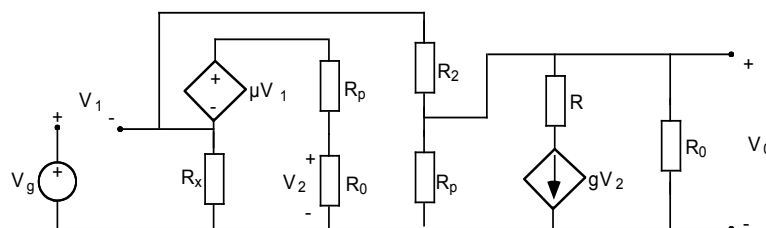
b) Emprant les dades :

$R_1=10k\Omega$; $R_2=2k\Omega$; $R_3=3k\Omega$; $K=5$; $I_{s1}=1mA$;
 $I_{s2}=2mA$.

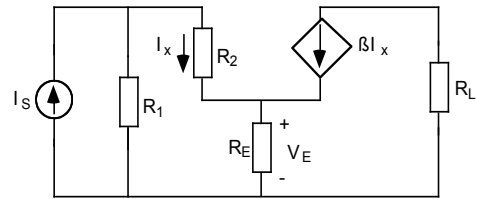


12. Calculau V_0/V_g en el circuit, emprant els valors següents:

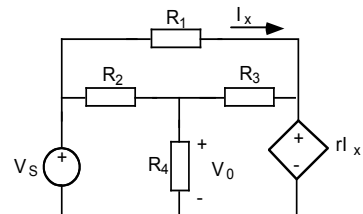
$R_x = R_p = 5 k\Omega$ $R_o = 10 k\Omega$ $R_2 = R = 38k\Omega$ $\mu = 5000$ $g = 10^{-2} \Omega^{-1}$



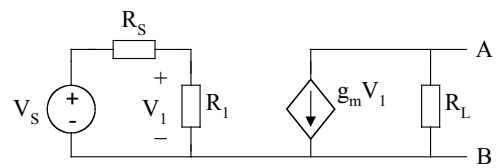
13. Calculau V_E en el circuit



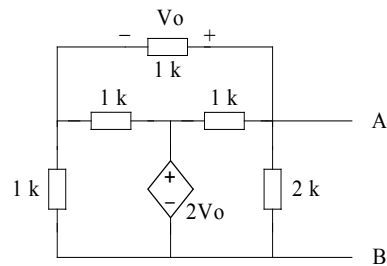
14. Calculau V_0 en el circuit



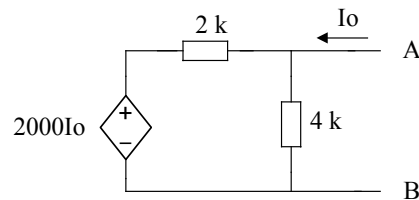
15. Calculau l'equivalent Thevenin del circuit de la figura.



16. Determinau el circuit equivalent de Thevenin entre A i B



17. Determinau l'equivalent de Thevenin del circuit entre els punts A i B.



18. Calcular V_o trobant primer l'equivalent de Thevenin entre A i B

