a) Se dau: $R_1=R_5=R_{21}=2\Omega$, $R_2=1\Omega$, $R_3=4\Omega$, $J_4=4A$, $E_1=12V$, $E_3=4V$, $E_2=R_{21}*I_1$

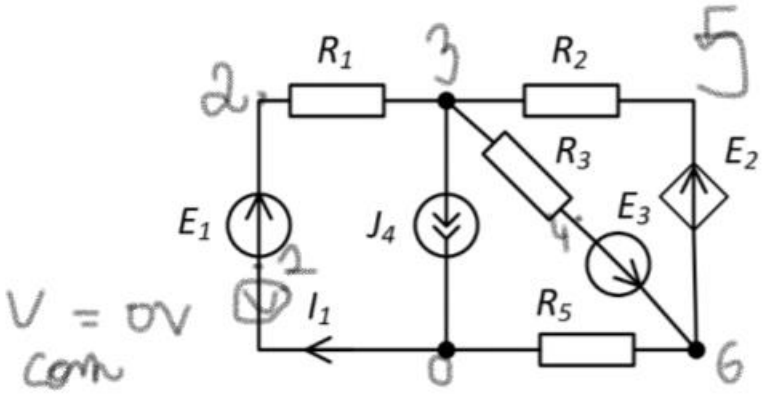
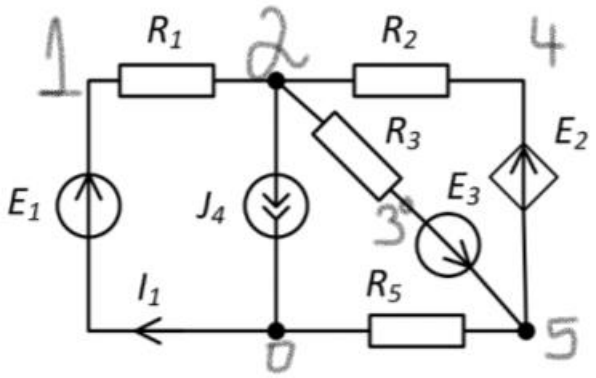


Fig. 5. Exercițiul a

```
Circuit cu STCC
R1 2 3 2
R2 3 5 1
R3 3 4 4
R5 6 0 2
V1 2 1 12
V3 6 4 4
I4 3 0 4
Vcom 0 1 0
H2 5 6 Vcom 2
.DC I4 4 4 1
.PRINT DC I(R1) I(R2) I(R3) I(R5) V(I4)
.END
```

```
R1 2 3 2
R2 3 5 1
R3 3 4 4
R5 6 0 2
V1 2 1 12
V3 6 4 4
I4 3 0 4
Vcom 0 1 0
H2 5 6 Vcom 2
.DC I4 4 4 1
.PRINT DC I(R1) I(R2) I(R3) I(R5) V(I4)
.END

**** 04/01/21 13:33:02 ********** Evaluation PSpice (Nov 1999) **************

 Circuit cu STCC


 ****     DC TRANSFER CURVES               TEMPERATURE =   27.000 DEG C


******************************************************************************


  I4          I(R1)        I(R2)        I(R3)        I(R5)        V(I4)

   4.000E+00   3.750E+00  -2.500E+00   2.250E+00  -2.500E-01   4.500E+00
```




```
Circuit cu STCC
R1 1 2 2
R2 2 4 1
R3 2 3 4
R5 5 0 2
V1 1 0 12
V3 5 3 4
I4 2 0 4
H2 4 5 V1 -2
.DC V1 12 12 1
.PRINT DC I(R1) I(R2) I(R3) I(R5) V(I4)
.END
```

```
R1 1 2 2
R2 2 4 1
R3 2 3 4
R5 5 0 2
V1 1 0 12
V3 5 3 4
I4 2 0 4
H2 4 5 V1 -2
.DC V1 12 12 1
.PRINT DC I(R1) I(R2) I(R3) I(R5) V(I4)
.END
□
**** 04/01/21 13:42:47 ************ Evaluation PSpice (Nov 1999) ***************

 Circuit cu STCC


 ****     DC TRANSFER CURVES                TEMPERATURE =   27.000 DEG C


******************************************************************************


  V1           I(R1)        I(R2)        I(R3)        I(R5)        V(I4)

   1.200E+01   3.750E+00  -2.500E+00   2.250E+00  -2.500E-01   4.500E+00
```

b)

Fig. 5. Exercițiul a

b). Se dau: R_1=5Ω, R_3=4Ω, R_4=3Ω, R_5=2Ω, E_1=78V, J_2=6A, E_3=0.5*U_{g2}, J_5=0.5*I_4

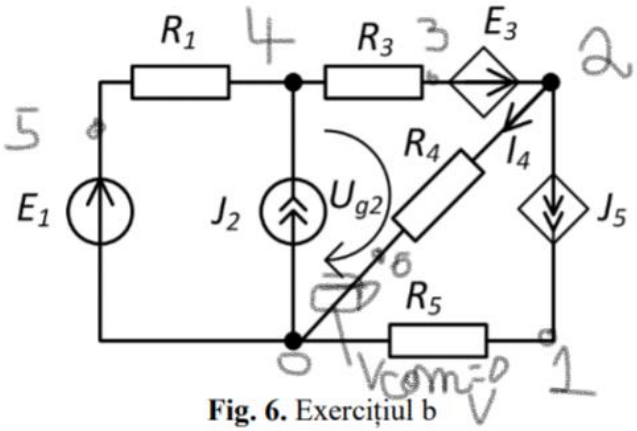


Fig. 6. Exercițiul b

```
subpunctul b
R1 4 5 5
R3 4 3 4
R4 2 6 3
R5 0 1 2
V1 5 0 78
Vcom 6 0 0
I2 0 4 6
E 2 3 4 0 0.5
F5 2 1 Vcom 0.5
.DC V1 78 78 1
.PRINT DC I(R1) I(R3) I(R4) I(R5) V(I2)
.END
```

```
R1 4 5 5
R3 4 3 4
R4 2 6 3
R5 0 1 2
V1 5 0 78
Vcom 6 0 0
I2 0 4 6
E 2 3 4 0 0.5
F5 2 1 Vcom 0.5
.DC V1 78 78 1
.PRINT DC I(R1) I(R3) I(R4) I(R5) V(I2)
.END

**** 04/01/21 16:10:51 ********** Evaluation PSpice (Nov 1999) **************

 subpunctul b


 ****     DC TRANSFER CURVES                TEMPERATURE =   27.000 DEG C


******************************************************************************


  V1          I(R1)        I(R3)        I(R4)        I(R5)        V(I2)

   7.800E+01  -6.000E+00    1.200E+01    8.000E+00  -4.000E+00  -4.800E+01
```

c)

c). Se dau: $R_1=R_2=R_3=R_4=2\Omega$, $E_1=12V$, $E_2=6V$, $J_5=1*U_1$

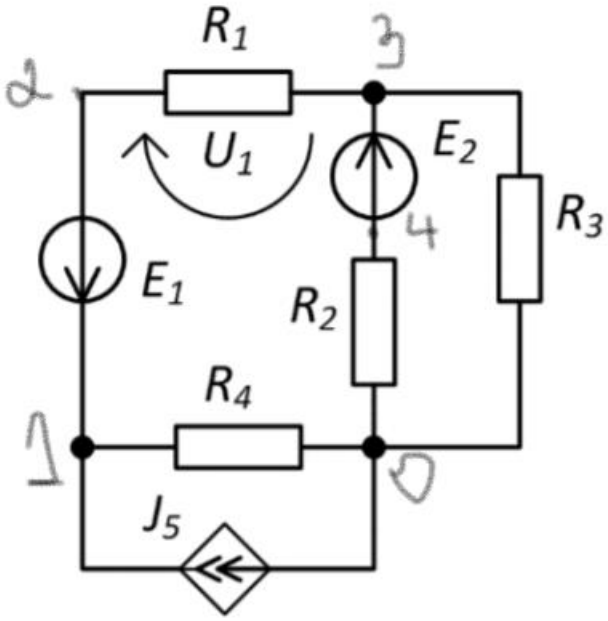


Fig. 4. Exercițiul c

```
subpunctul c
R1 3 2 2
R2 4 0 2
R3 0 3 2
R4 0 1 2
V1 1 2 12
V2 3 4 6
G_curent 0 1 3 2 1
.DC V1 12 12 1
.PRINT DC I(R1) I(R2) I(R3) I(R4) V(G_curent)
.END
```

```
R1 3 2 2
R2 4 0 2
R3 0 3 2
R4 0 1 2
V1 1 2 12
V2 3 4 6
G_curent 0 1 3 2 1
.DC V1 12 12 1
.PRINT DC I(R1) I(R2) I(R3) I(R4) V(G_curent)
.END
□
**** 04/01/21 16:24:55 ********** Evaluation PSpice (Nov 1999) **************

 subpunctul c


 ****     DC TRANSFER CURVES               TEMPERATURE =   27.000 DEG C


******************************************************************************



  V1          I(R1)       I(R2)       I(R3)       I(R4)       V(G_curent)

   1.200E+01   1.667E+00  -2.333E+00  -6.667E-01  -5.000E+00  -1.000E+01



          JOB CONCLUDED

          TOTAL JOB TIME            0.00
□
```