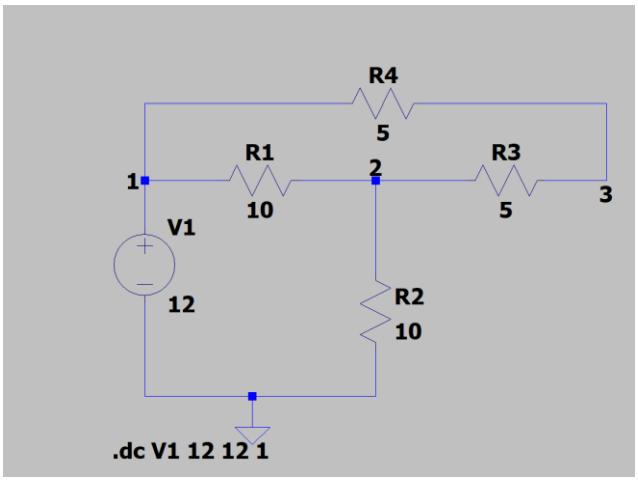
Referat lucrare de laborator 2 – Constantinescu Vlad 314CB

Exemplu 1

```
* C:\Users\Vlad\Desktop\Poli\ELTH\circuitT.cir
VPOLARIZARE 1 0 12
R1 1 2 10
R2 2 0 10
R3 2 3 5
R4 1 3 5
*
.OP
.END
```

```
      --- Operating Point ---

V(1):          12              voltage
V(2):          8               voltage
V(3):          10              voltage
I(R4):         0.4             device_current
I(R3):         -0.4            device_current
I(R2):         0.8             device_current
I(R1):         0.4             device_current
I(Vpolarizare):                -0.8          device_current
```

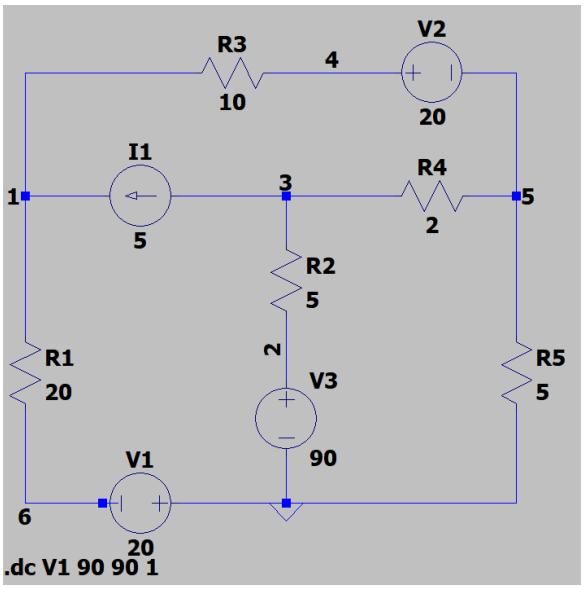



```
      --- DC transfer characteristic ---

v1:            12              voltage
V(1):          12              voltage
V(2):          8               voltage
V(3):          10              voltage
I(R2):         0.8             device_current
I(R3):         0.4             device_current
I(R4):         -0.4            device_current
I(R1):         -0.4            device_current
I(V1):         -0.8            device_current
```

Exemplu 2

```
* C:\Users\Vlad\Desktop\Poli\ELTH\cc1.cir
V1 2 0 90
V2 0 6 20
V3 4 5 20
I1 3 1 5
R1 1 6 20
R2 3 2 5
R3 1 4 10
R4 3 5 2
R5 5 0 5
.dc V1 90 90 1
.print dc I(R1) I(R2) I(R3) I(R4) I(R5) V(I1)
.end
```

```
      --- DC transfer characteristic ---

v1:            90              voltage
I(R5):         6               device_current
I(R4):         5               device_current
I(R3):         1               device_current
I(R2):         -10             device_current
I(R1):         4               device_current
```

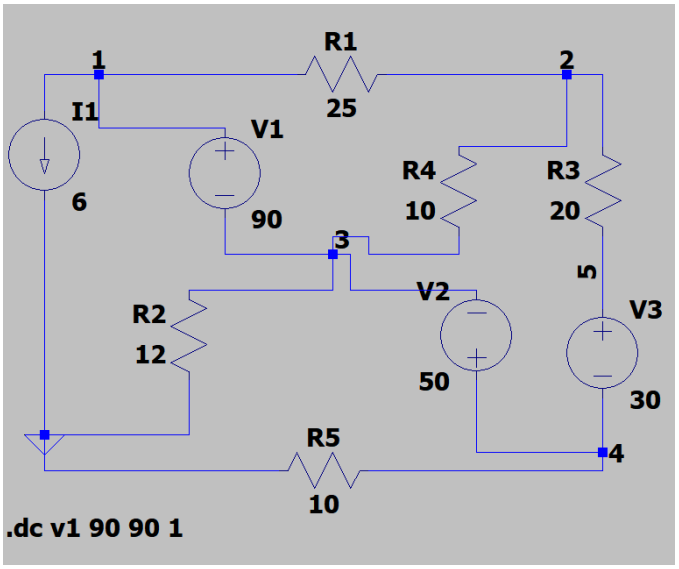



```
      --- DC transfer characteristic ---

v1:            90              voltage
V(6):          -90             voltage
V(2):          90              voltage
V(1):          32.5316         voltage
V(4):          43.7975         voltage
V(5):          23.7975         voltage
V(3):          35.5696         voltage
I(I1):         5               device_current
I(R5):         4.75949         device_current
I(R2):         -10.8861        device_current
I(R3):         1.12658         device_current
I(R4):         -5.88608        device_current
I(R1):         6.12658         device_current
I(V2):         -1.12658        device_current
I(V3):         -10.8861        device_current
I(V1):         -6.12658        device_current
```

Exercitiu 1

```
* C:\Users\Vlad\Desktop\Poli\ELTH\Lab2\Ex1\ex1.cir
V1 1 3 90
V2 4 3 50
V3 5 4 30
I1 1 0 6
R1 1 2 25
R2 0 3 12
R3 2 5 20
R4 3 2 10
R5 0 4 10
.dc V1 90 90 1
.print dc I(R1) I(R2) I(R3) I(R4) I(R5) V(I1)
.end
```

```
        --- DC transfer characteristic ---

v1:             90              voltage
I(R5):          1               device_current
I(R4):          -4              device_current
I(R3):          -2              device_current
I(R2):          5               device_current
I(R1):          2               device_current
```

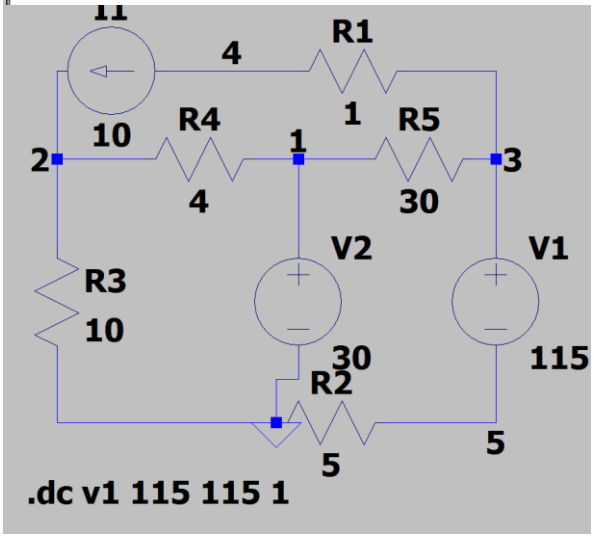



```
        --- DC transfer characteristic ---

v1:             90              voltage
V(2):           -20             voltage
V(1):           30              voltage
V(3):           -60             voltage
V(5):           20              voltage
V(4):           -10             voltage
I(I1):          6               device_current
I(R5):          1               device_current
I(R4):          -4              device_current
I(R3):          2               device_current
I(R2):          5               device_current
I(R1):          -2              device_current
I(V3):          -2              device_current
I(V2):          -1              device_current
I(V1):          -8              device_current
```

Exercitiul 2

```
* C:\Users\Vlad\Desktop\Poli\ELTH\Lab2\Ex2\ex2.cir
R1 3 4 1
R2 5 0 5
R4 2 1 4
R5 1 3 30
V1 3 5 115
V2 1 0 30
I1 4 2 10
R3 2 0 10
.dc v1 115 115 1
.print dc I(R1) I(R2) I(R3) I(R4) I(R5) V(I1)
.end
```

```
        --- DC transfer characteristic ---

v1:             115             voltage
I(R3):          5               device_current
I(R5):          -1              device_current
I(R4):          5               device_current
I(R2):          -11             device_current
I(R1):          10              device_current
```

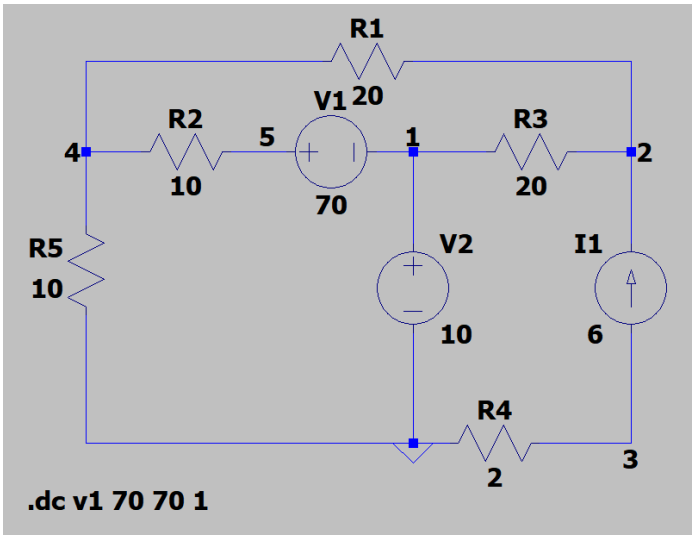



```
        --- DC transfer characteristic ---

v1:             115             voltage
V(3):           60              voltage
V(4):           50              voltage
V(5):           -55             voltage
V(2):           50              voltage
V(1):           30              voltage
I(I1):          10              device_current
I(R3):          5               device_current
I(R5):          -1              device_current
I(R4):          5               device_current
I(R2):          -11             device_current
I(R1):          10              device_current
I(V2):          6               device_current
I(V1):          -11             device_current
```

Exercitiul 3

```
* C:\Users\Vlad\Desktop\Poli\ELTH\Lab2\Ex3\ex3.cir
R1 2 4 20
R2 5 4 10
R3 2 1 20
R5 0 4 10
I1 3 2 6
V1 5 1 70
V2 1 0 10
R4 3 0 2
.dc v1 70 70 1
.print dc I(R1) I(R2) I(R3) I(R4) I(R5) V(I1)
.end
```

```
        --- DC transfer characteristic ---

v1:             70              voltage
I(R4):          -6              device_current
I(R5):          -5              device_current
I(R3):          4               device_current
I(R2):          3               device_current
I(R1):          2               device current
```




```
        --- DC transfer characteristic ---

v1:             70              voltage
V(2):           90              voltage
V(4):           50              voltage
V(5):           80              voltage
V(1):           10              voltage
V(3):           -12             voltage
I(I1):          6               device_current
I(R4):          -6              device_current
I(R5):          -5              device_current
I(R3):          4               device_current
I(R2):          3               device_current
I(R1):          2               device_current
I(V2):          1               device_current
I(V1):          -3              device_current
```