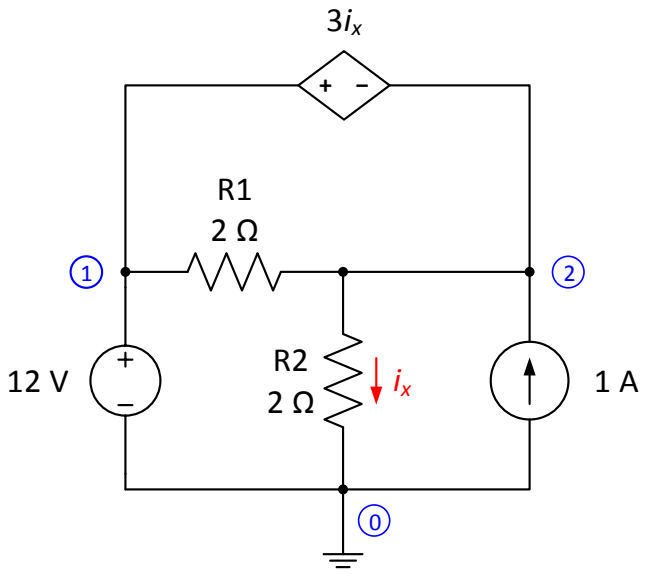
NodeVr Example (Problem 4.4-5)




```
>> NodeVr

Enter Network Elements
Element  1:  Vs, 1, 0, 12
Element  2:  R1, 1, 2, 2
Element  3:  R2, 2, 0, 2
Element  4:  Is, 0, 2, 1
Element  5:  CCVS, 1, 2, 3, R2
Element  6:


NODE VOLTAGES
Node           Voltage
   0         Reference
   1         12.000  V
   2          4.800  V

SOURCES
Element          Value   NodeA   NodeB   Control        Voltage        Current     P supplied
Vs           12.000  V       1       0                12.000  V      -1.400  A      16.800  W
Is            1.000  A       0       2                -4.800  V       1.000  A       4.800  W
CCVS          3.000  Ω       1       2   R2           7.200  V      -2.200  A      15.840  W
                                                                                  -----------
                                                                                    37.440  W

PASSIVE ELEMENTS
Element          Value   NodeA   NodeB                Voltage        Current     P absorbed
R1            2.000  Ω       1       2                7.200  V       3.600  A      25.920  W
R2            2.000  Ω       2       0                4.800  V       2.400  A      11.520  W
                                                                                  -----------
                                                                                    37.440  W
```

```
>> A

A =

    0.5000   -0.5000    1.0000         0    1.0000         0
   -0.5000    1.0000         0   -1.0000   -1.0000         0
    1.0000         0         0         0         0         0
         0         0         0    1.0000         0         0
    1.0000   -1.0000         0         0         0   -3.0000
         0   -0.5000         0         0         0    1.0000

>> B

B =

     0
     0
    12
     1
     0
     0

>> X

X =

   12.0000
    4.8000
   -1.4000
    1.0000
   -2.2000
    2.4000
```