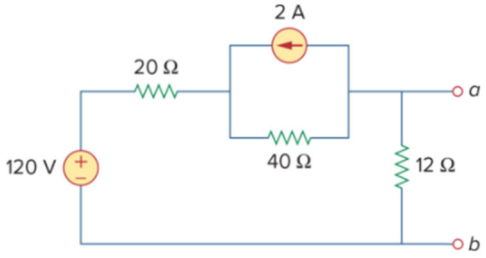
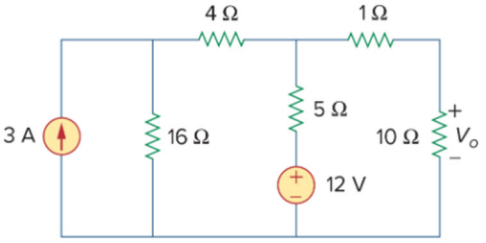
EE1002 Tutorial 6

(Questions from the Textbook by Alexander & Sadiku, 7th edition Problems 4.37, 4.38, & 4.41)

1. Find the Norton equivalent with respect to terminals *a-b* in the following circuit.

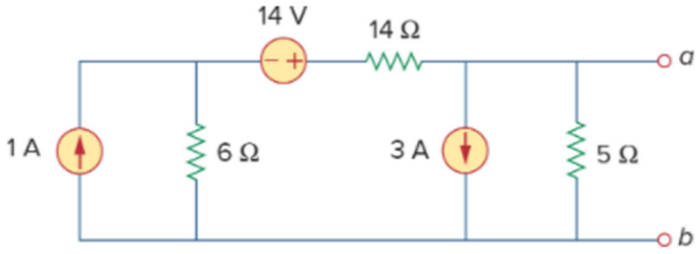


2. Apply Thevenin's theorem to find Vo in the following circuit.



Question 3 below will not be discussed in the Tutorial class. It is an additional exercise for the students only.

3. Find the Thevenin and Norton equivalents at terminals a-b of the following circuit.



Answers:

1. $R_N = 10\ \Omega$; $I_N = 666.7$ mA.
2. $V_o = 12.8$ V.
3. $R_{th} = R_N = 4\Omega$; $V_{th} = -8$V; $I_N = -2$A.