Instructor:

Asst. Prof. Onur Kurt

Student Name:

ID:

Date:

ITU

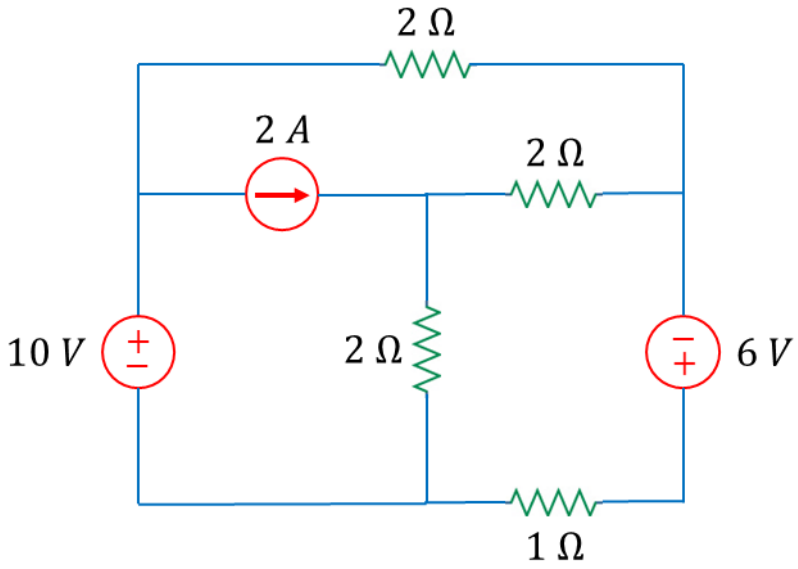
EHB 211E: Basics of Electrical Circuits (Fall 2020)

Homework 2

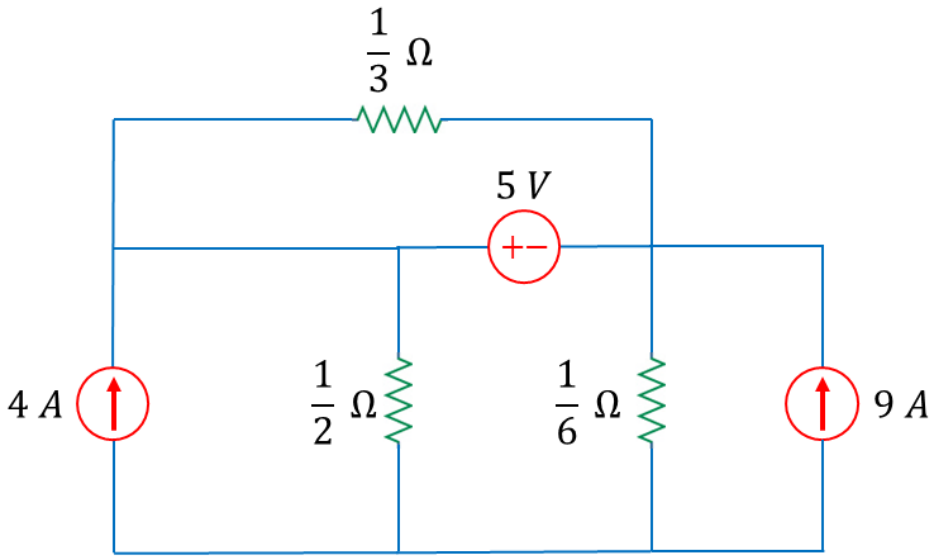
Grading Policy:

- You must upload your homework assignment to Ninova before its due date. Late homework will not be accepted/graded.
- Homework should be written clearly and legibly. Your answers should show step-by-step solution of each question. Messy and illegible homework may not be graded.
- You must not ask for answers directly from any aide.
- Academic dishonesty is unacceptable. Plagiarism and cheating on the homework assignment will result in a zero grade.

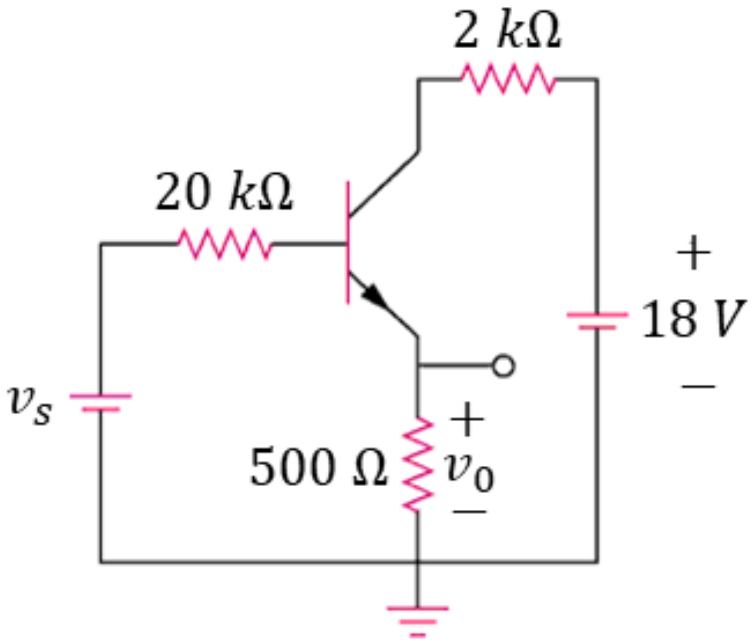
Question 1-) Determine the current through and the power dissipated in 1-Ω resistor in the circuit shown below using mesh analysis.



Question 2-) Use nodal analysis to determine the voltage across each current source in the circuit shown below.



Question 3-) For the BJT circuit shown below, $V_0 = 6\,V$, $\beta = 200$ and $V_{BE} = 0.7\,V$. Determine V_s.



Question 4-) For the circuit shown below, find the nodal voltage v_1 through v_4 using PSpice.