2/15 In Class: Thevenin Equivalent

Do these problems before starting Lab 4 and check your work with each other and me

You may work in groups at the lab tables or at the white board. If you work on the white board, I am happy to take pics and make them available on google drive.

14. ⊗ *(1e:1.8)* We now attach two output terminals to the circuit from problem 13. The resulting circuit is shown in in Figure 1.40. **(a)** What is the voltage between the terminals G and H? **(b)** What current flows from G to H? **(c)** If we connect a wire from G to H, what current flows through the wire and what is the voltage between G and H?

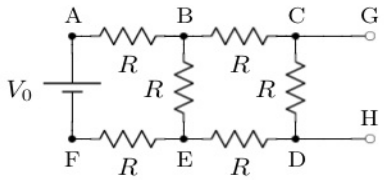

Figure 1.40: The circuit for problem 14.

15. You measure the potential difference across a $10\,k\Omega$ resistor to be $10\,V$. What is the current flowing through the resistor?

16. *(1e:1.9)* Replace the circuit from problem 14 with the simpler one shown in Figure 1.41. V_{th} is a voltage source and R_{th} is a new resistance. What are the values of V_{th} and R_{th} such that you get th

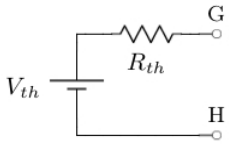

Figure 1.41: The circuit for problem 16.

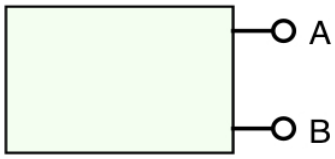

Figure 1.42: The electrical device for problem 17.

25. ⊗ *(1e:1.16)* Determine the parameters of the Thévenin equivalent for the circuit shown in Figure 1.45.

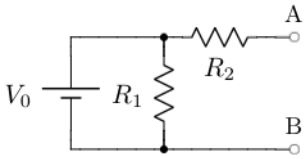

Figure 1.45: The circuit for problem 25.