EGN3204 — Engineering Software Tools
Pensacola (82151) Section, Fall 2014
Problem Set #6 (October 2nd, 2014 Lecture)
(Word, Multisim 2013)

James Davis

1. The circuit design for problem one is given in Figure 1, while the DC Sweep output for problem one is given in Figure 2.

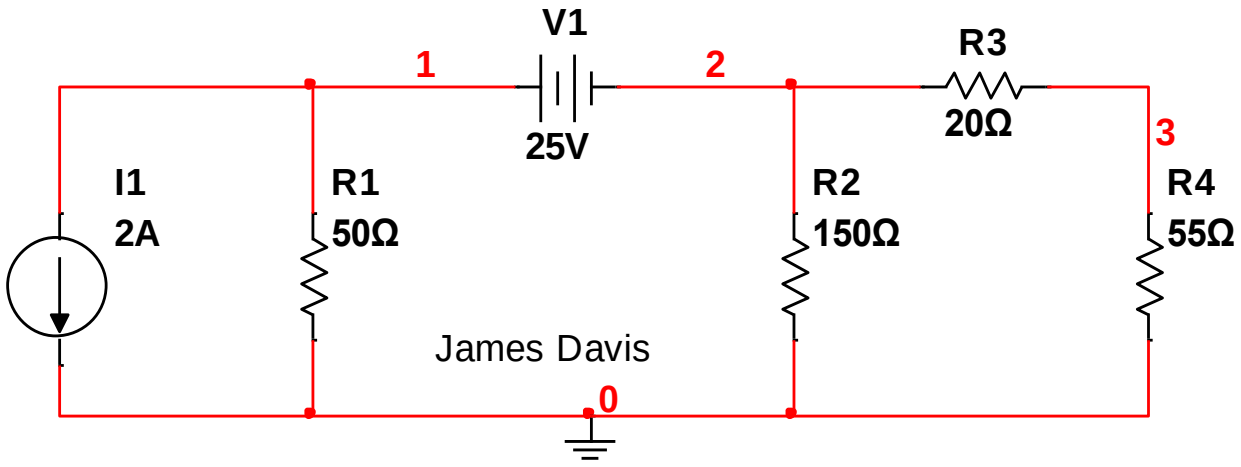

Figure 1. The circuit schematic for problem one.

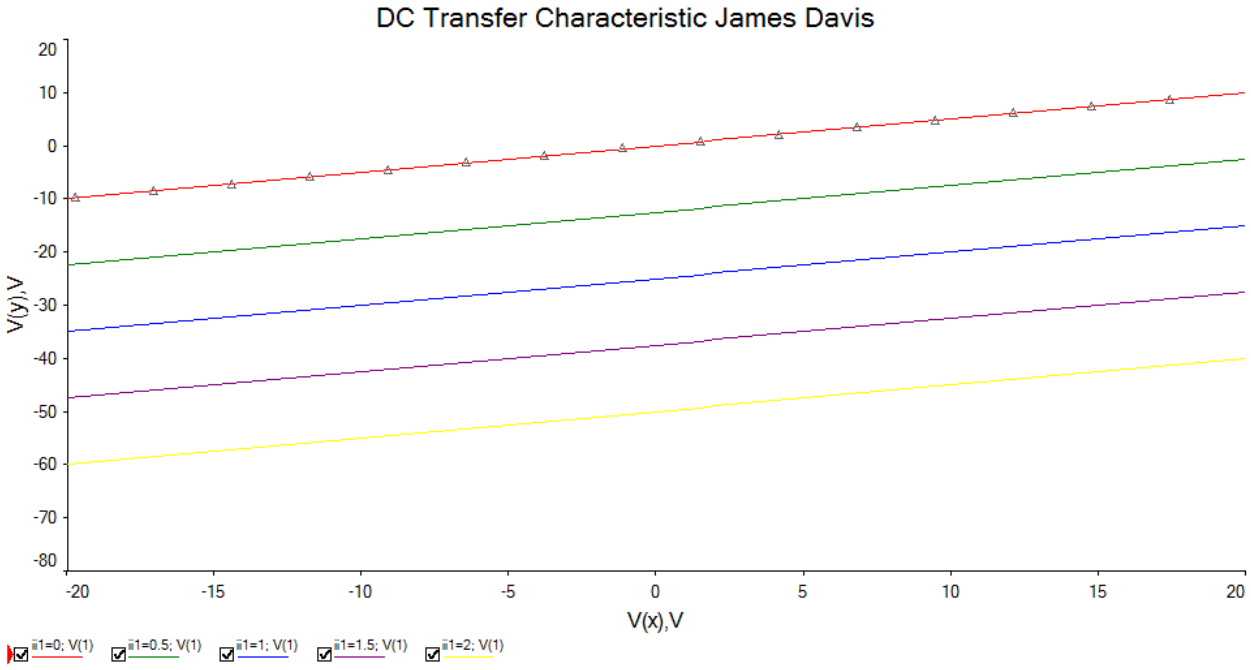

Figure 2. The DC Sweep grapher output for problem 1.

2. The circuit schematic for problem two is given in Figure 3, and the grapher output for the Transient Analysis is given in Figure 4.

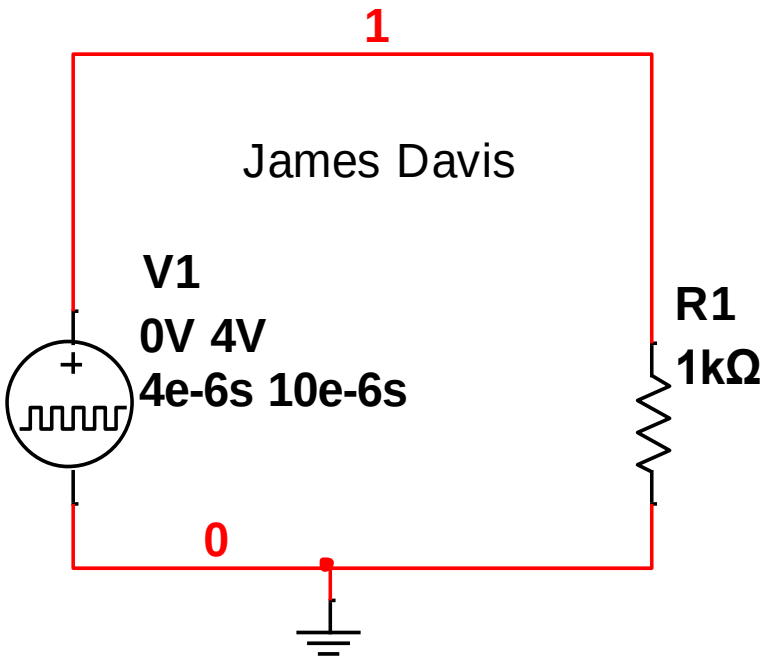

Figure 3. Circuit schematic for problem two.

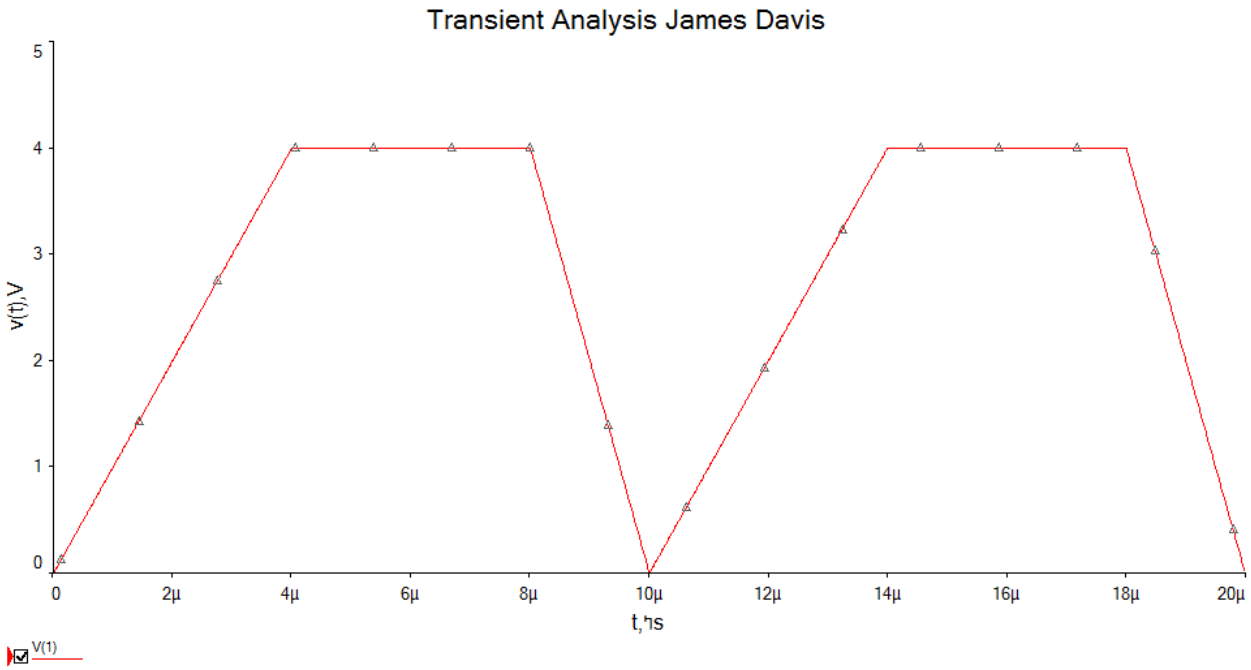

Figure 4. Transient analysis output for problem two.

3. The circuit schematic for problem three is given in Figure 5. The Transient Analysis grapher output window is given in Figure 6.

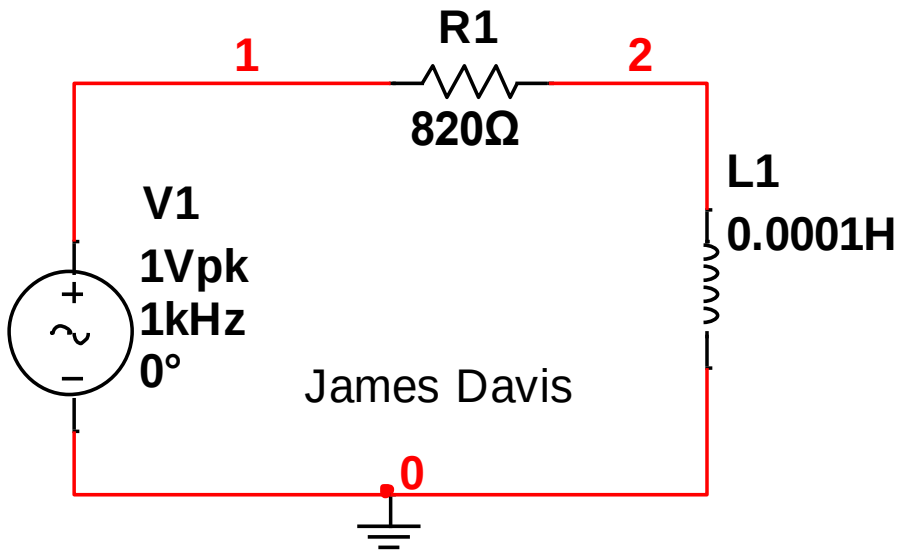

Figure 5. The circuit schematic for problem three.

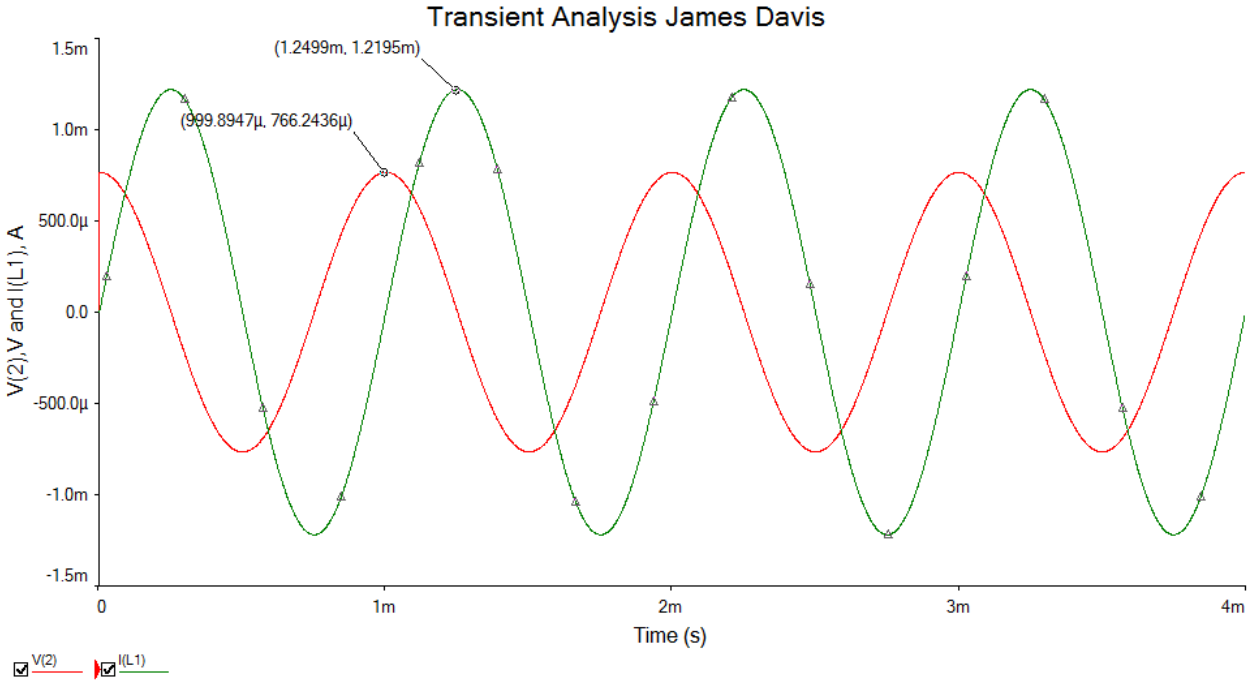

Figure 6. The Transient Analysis grapher output window for problem three.

As can be seen from the grapher output window the time $t_v = 989.89*10^{-6}$s and $t_i = 1.2499*10^{-3}$s. Given the equation:

$$\Delta\theta = \frac{|t_v - t_i|}{T} * 360° \text{ where T is the period for voltage source.}$$

Then it follow that: $\Delta\theta = 96°$