
**P4.1** Do problem J&B 12.74.

**P4.2** Do problem J&B 12.75.

**P4.3** Do the following problems from J&B:

- 3.21, 3.22, 3.24, 3.66, 3.69, 3.71,
- 3.98 (assume ideal diodes, and voltages on the capacitors are initially 0V at time $t = 0$)
- 3.119,
- 11.91 (use the constant voltage drop diode model with $V_{ON} = 0.5V$).

**P4.4** For the circuit below, assume $v_{in} = 0.5 \cos(\omega t)$ where $\omega \ll 1/RC$. Use the constant voltage drop model for the diodes with $V_{on} = 0.6V$ and assume the opamp is ideal. Sketch the waveforms at $v_{out}$ and $v_{oamp}$ for the first two complete periods of $v_{in}$, assuming $v_{in} = 0$ for $t < 0$. 

![Circuit Diagram]