 Lab 7 - OPAMP Oscillators (Phase Shift)

Draw the following schematic in your Lab notebook:

- For the quad opamp, use the supplied MCP6284. You only need (1) IC.
- Assign pins as needed, see datasheet for pinout. Add Vaa + Vss.
- Create a 2.5V source with a resistive divider. Add "kicker".
- Connect Vss + Vaa pins as appropriate. Vaa must be 5V.
- Run an SPICE simulation of the oscillator w/o R3
  - What frequency does it oscillate at?
  - Reduce R2 slightly. At what value does the oscillation stop?
  - Record a plot of $V_A, V_B, V_C, V_D$
- Build the circuit and see if it works w/o R3. If it does not oscillate, include R3. You will demo this to your TA.

Deliverables:
- Schematic in lab notebook
- SPICE netlist + sim results
- Working circuit

A suitable "kicker" is a 1ns wide pulse of 1V
* See other netlists for appropriate subcircuit use