

- 1 – Design: Design and simulate(plot) an opamp circuit to provide the following parameters 30pts

$$V_{out} = -6V_{in}$$

$$Z_{in} \geq 20K\Omega$$

Use a UA741CD opamp, with $V_{in} = 200\text{mv pk}$, 2KHz sine wave

2 – Design: Design and simulate an opamp circuit to provide the following parameters 30pts

$$V_{out} = 6V_{in}$$

$$Z_{in} > 12K\Omega$$

Use a UA741CD opamp, with $V_{in} = 200\text{mv pk}$, 2KHz sine wave

3 – Research/Think: Design and simulate(plot) an opamp circuit to provide the following parameters 40pts

$$V_{out} = 3V_1 - 3V_2$$

$$Z_{in} > 5K\Omega$$

Use a UA741CD opamp, with V1 = 200mv pk, 2KHz sine wave, V2 = 100mv pk, 1KHz , 45° phase shifted sine wave