# EE380 EC lab exam

Section:

Name :

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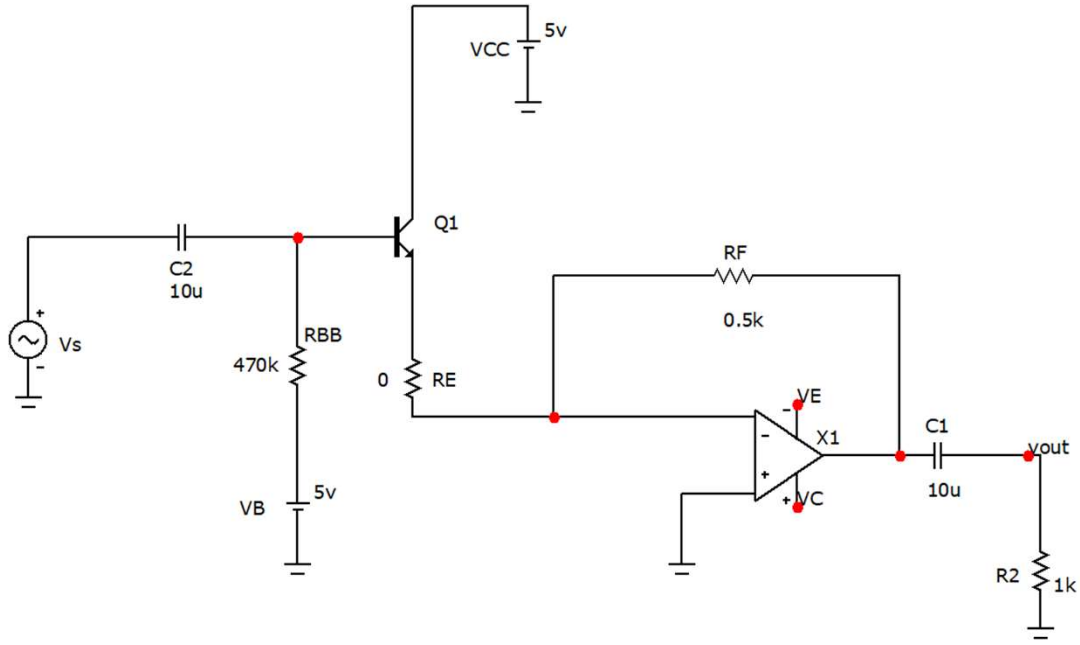


1. Breadboard the circuit shown on the right and use it to determine current gain ($\beta$) and ac transconductance $g_m$ for $v_s = 10mV\ Sin(\omega t), f = 1kHz$. Note $R_E = 0$ initially.

2. Measure distortion in the output ac voltage as a function of input ac voltage and explain the observed trend .

3. Simulate the circuit in MICROCAP to obtain results described in part-1.

4. Document all the results and show them to the instructor (not TA) for verification before recording it in answer book. No marks will be given for results that have not been verified.

5. After completing parts 1-3, experimentally determine the impact of resistance RE on transconductance and distortion