## EE 233 HW8

## Due Date: Nov 30th

Problems from text book (electric circuits, 10<sup>th</sup> version): **15.28**, **15.45**, **15.53**, **15.55** Other problems are listed below

 a) Using 1 kΩ resistors and ideal op amps, design a low-pass unity-gain Butterworth filter that has a cutoff frequency of 8 kHz and is down at least 48 dB at 32 kHz.
b) Draw a circuit diagram of the filter and label all the components.