

Special Problem 2.7-4

The amplifier below has an open-circuit voltage gain $A_{vo} = v_o/v_I$ and a 3dB bandwidth of 1 MHz.

The op-amp is **not** ideal.

- 1) At what frequency (in Hertz) is the gain of this amplifier equal to **one** (i.e., $|A_{vo}(f = ?)| = 1$)?
- 2) What is the **gain** this amplifier at a signal frequency of 5 MHz (i.e., $|A_{vo}(f = 5 \times 10^6)| = ?$)?
- 3) Determine a **new value** of resistor R_2 so that **bandwidth** of the amplifier is changed to 4.0 MHz.

