

Special Problem 4.10-1

You must determine the **resistor values** to bias this **amplifier**.

The **DC bias** must satisfy these requirements:

- 1) The desired bias current is $I_C = 3 \text{ mA}$.
- 2) A signal voltage as large as $v_o = 6 \cos \omega t$ may appear at the output. It must be **distortion-free**.
- 3) As much I_C **stability** as possible must be achieved (while still satisfying the other two requirements).
- 4) The current through the bias resistors R_1 and R_2 must be $0.5 I_C$.

