Problem 1 (25 points)

Bias the Transistor at \( I_C = 10\text{mA} \) and \( V_{CE} = 6\text{V} \). Your design should be independent of \( R_e \).

Problem 2 (25 points)

Bias the Transistor at \( I_C = 10\text{mA} \) and \( V_{CE} = 6\text{V} \).
Problem 3 (25 points)

Find the midband gain \( \frac{V_o}{V_s} \).

Problem 4 (25 points)

Find the midband gain \( \frac{V_o}{V_s} \).