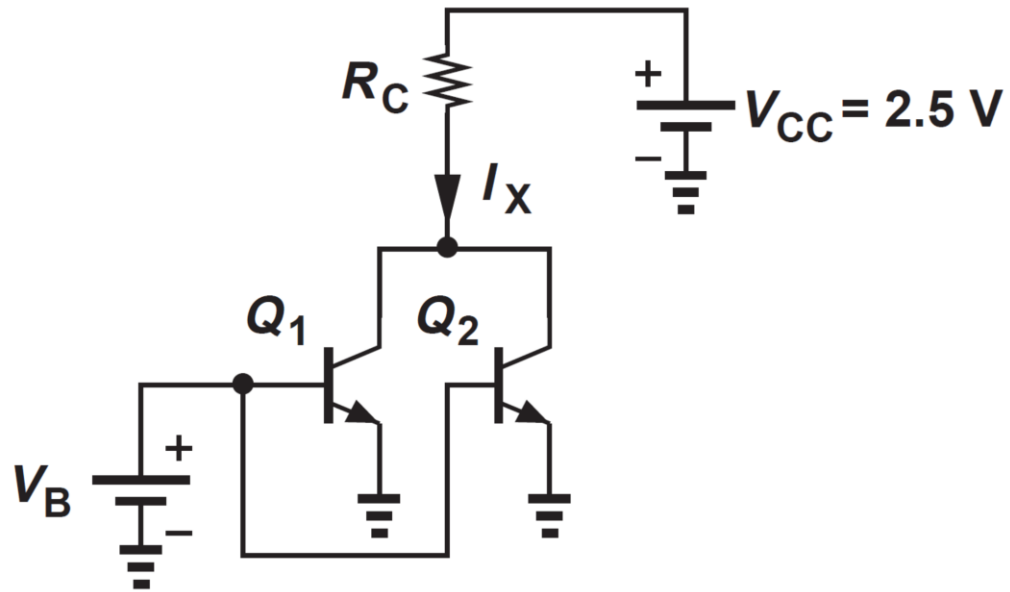


Q1. If  $I_{S1} = 2I_{S2} = 5 \times 10^{-16}$  A, determine  $V_B$  such that  $I_X = 1.2$  mA. What value of  $R_C$  places the transistors at the edge of the active mode?



Q2. Find the voltage gain of the circuits. Ignore Early effect.

