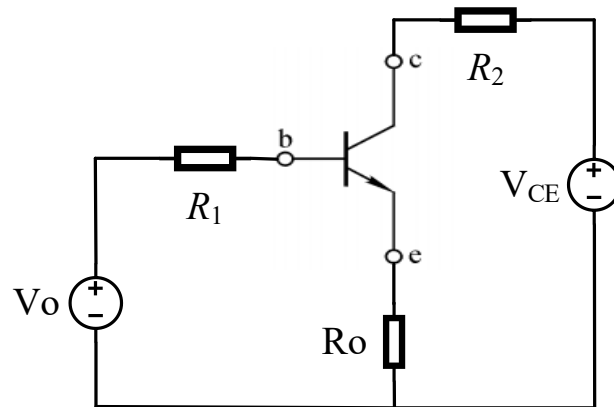


Practice Exercise of Lecture_2

1. A bipolar transistor has a collector current of 1mA and $I_S = 5 \times 10^{-16}$ A, how much is V_{BE} ? If $\beta = 50$, how much is base current?

2. Please draw the simple model of the following circuit:



3. If $V_o = 5$ V, $R_o = 100 \Omega$, $V_{CE} = 12$ V, $R_1 = 200 \Omega$, $R_2 = 100 \Omega$, $\beta = 50$, please calculate collector current? (Just give the final formula, not need to calculate the exact value).