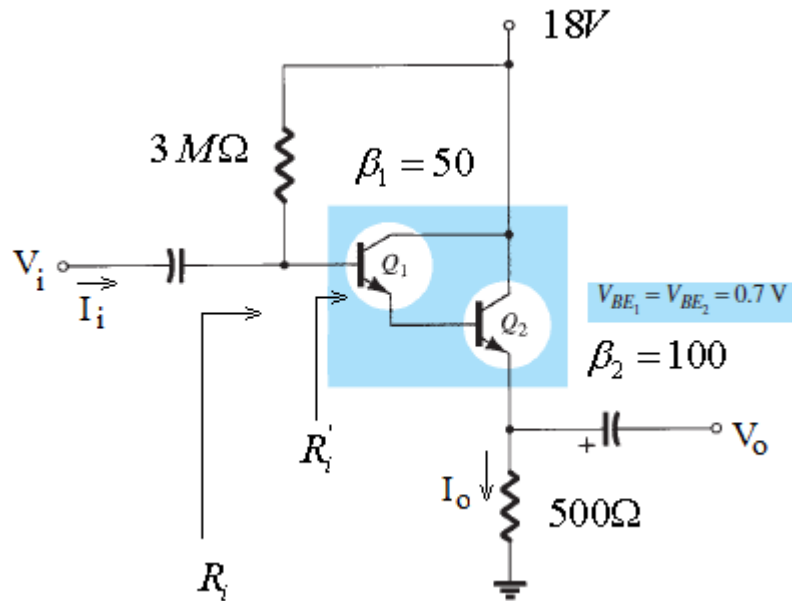


(09 Oct 2014)

1. For the circuit shown, find the input resistance  $R_i$  and the voltage gain  $A_v = \frac{V_o}{V_i}$ . Assume  $V_T = 26$  mV and neglect the effect of transistor output resistance  $r_o$ .



2. Find the current  $I$  for the circuit shown below. The transistor has  $\beta = 100$ . Assume that the transistor is in active region and  $V_{BE} = 0.7$  V.

