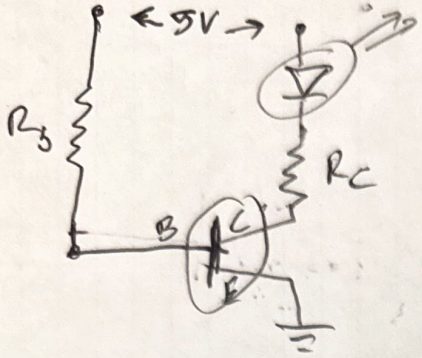
10) Where $R_B = 2k\Omega$ $R_C = 100\ \Omega$



$$I_B = \frac{(V_S - V_{BE})}{R_b} = \frac{4.4}{2k\Omega} = 2.2\ mA$$

$$I_c = 250 \cdot I_B = 550\ mA$$

$$V_{CE} = V_s - V_{Rc0} - V_c = 5 - 2 - (550 \cdot 10^{-3})(100)$$

$$\rightarrow V_{CE} = -52\ V$$

Definitely not possible.

What would actually happen is the transistor would act like a closed circuit and there would be no gain from $I_B \rightarrow I_c$ Instead the current is entirely dependant on the Collector circuit.