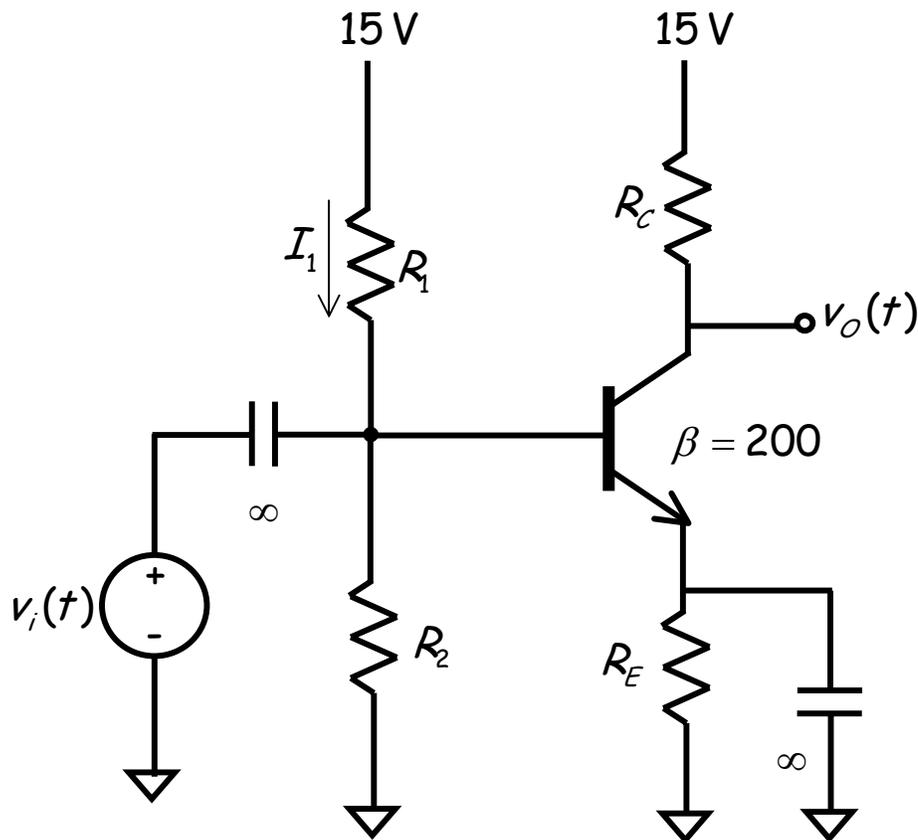


### Special Problem 4.10-2

Determine the values of resistors  $R_1$ ,  $R_2$ ,  $R_C$ ,  $R_E$  so that:

- the collector current is 1.0 mA
- the DC emitter voltage is  $V_E = 2.3$  V
- current  $I_1 = 0.5 I_C$
- the small-signal output shown on the next page is as large as possible (i.e., the value  $a$  is as large as possible) without distortion.

**Hint:** This is a DC bias problem, no small-signal analysis is required.



Look on next page to see output signal!!

Note this is the small-signal **output** signal.

