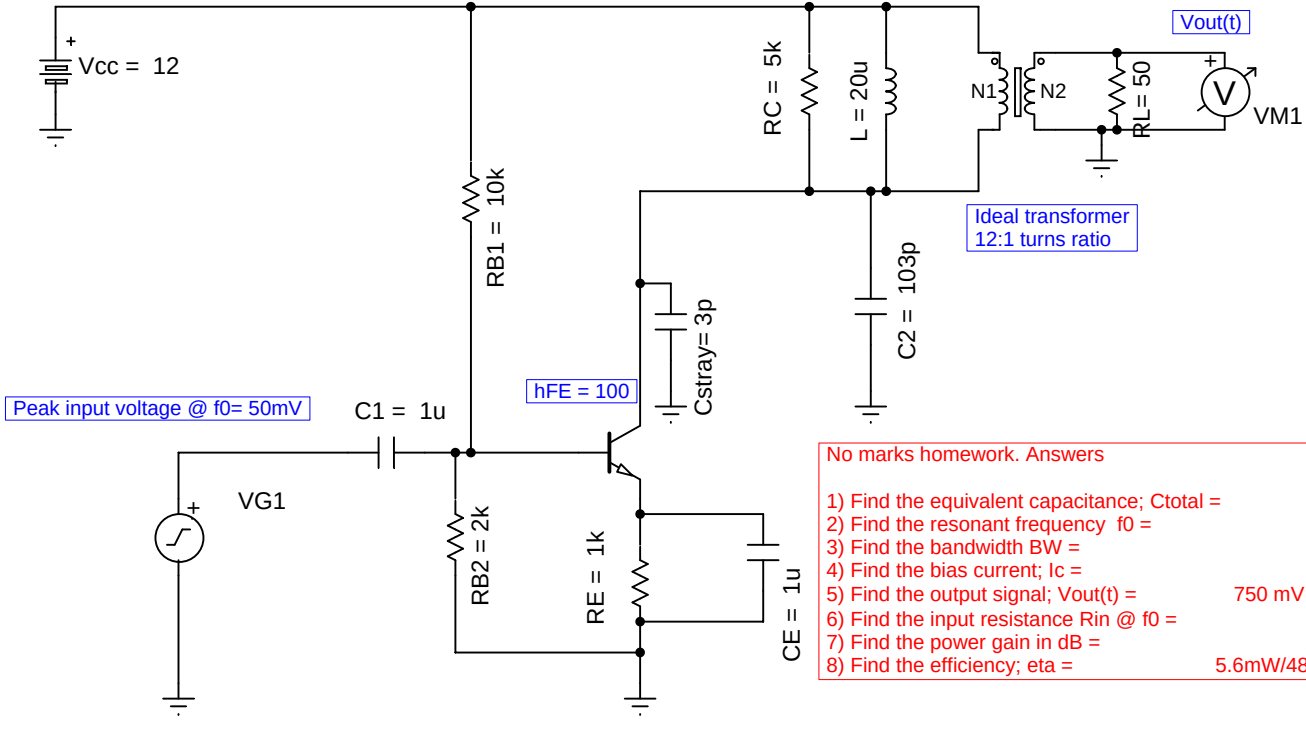

No marks homework. Answers

1) Find the equivalent capacitance; Ctotal = 106 pF.
2) Find the resonant frequency f0 = 3.4 MHz.
3) Find the bandwidth BW = 500 kHz.
4) Find the bias current; Ic = 1.3 mA
5) Find the output signal; Vout(t) = 750 mV·cos 2pi 3.4MHz t v
6) Find the input resistance Rin @ f0 = 130 ohms
7) Find the power gain in dB = 22 + 4 = 26 dB
8) Find the efficiency; eta = 5.6mW/48mW ·100= 11.7 %