ECE 210 F00 Q7 11/09/00

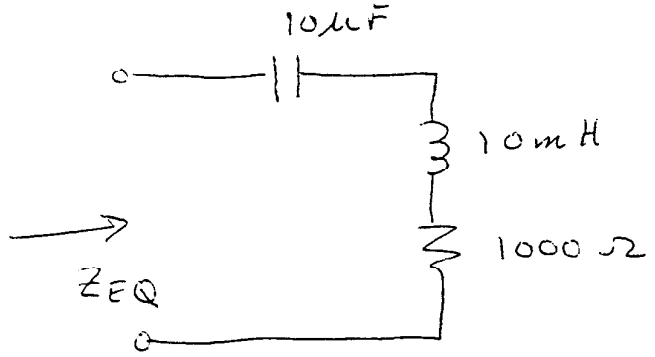
NAME

Honor Code:

KEY

1. Find the equivalent impedance of the network below. Use f=60 Hz.

$\omega = 2\pi f = 377 \frac{rad}{sec}$



$$Z_{EQ} = Z_C + Z_L + Z_R$$

$$= \frac{-j}{\omega C} + j\omega L + R$$

$$= \frac{-j}{(377)\cdot(10\times10^{-6})} + j(377)(.01) + 1000$$

$$= \underline{(1000 - 261.48j)\,\Omega}$$