

EE202 Homework 8

- (1) Use the Fourier transform to find $v_0(t)$ and $i_0(t)$ in the circuit in Fig. 1 if $v_g = 15 \text{sgn}(t)$ (V).

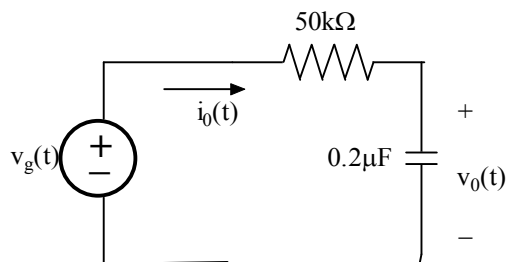


Fig. 1.

- (2) Use the Fourier transform to find $v_0(t)$ and $i_0(t)$ in the circuit in Fig. 2 if $i_g = 2 \text{sgn}(t)$ (A).

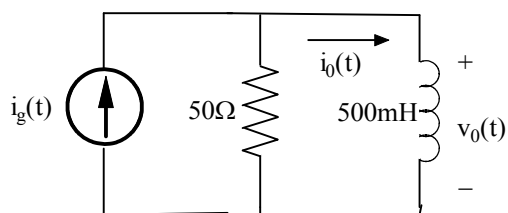


Fig. 2.

- (3) Find the impedance Z_{in} in Fig.3 if $Z_L = 100 + j200 \Omega$.

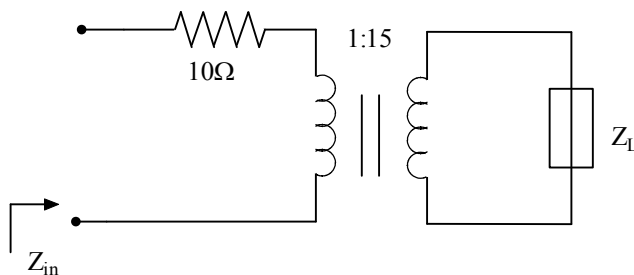


Fig. 3.