

ECET341 Homework 8

- (1) Find the Fourier series for the periodic signal shown in Fig. 1.

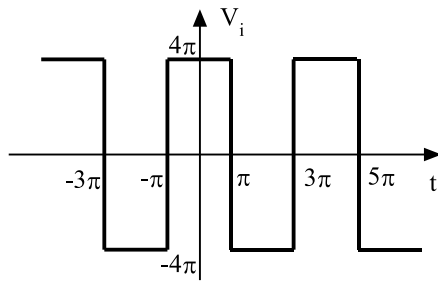


Fig. 1.

- (2) The periodic square-wave voltage seen in Fig. 1 is applied to the circuit shown in Fig. 2. Derive the steady-state voltage  $V_0(t)$  as a response to the first two nonzero terms in the Fourier series that represents the  $V_i$ .

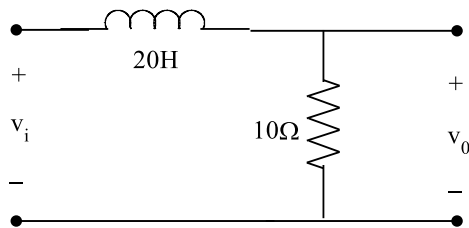


Fig. 2