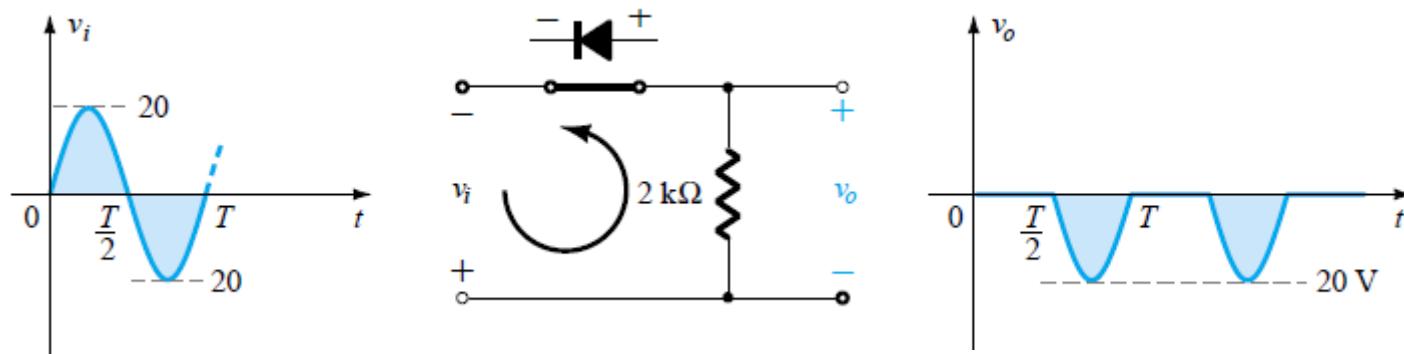
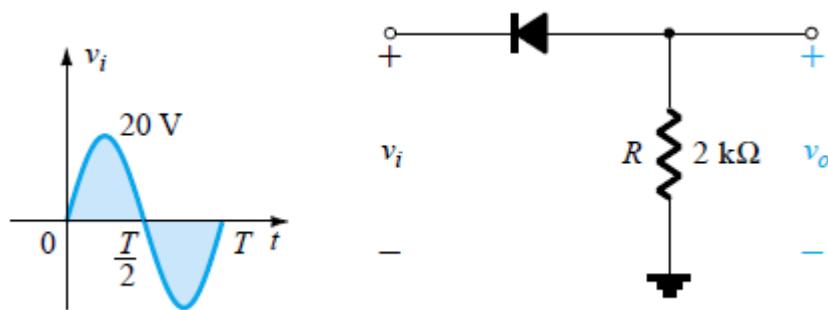
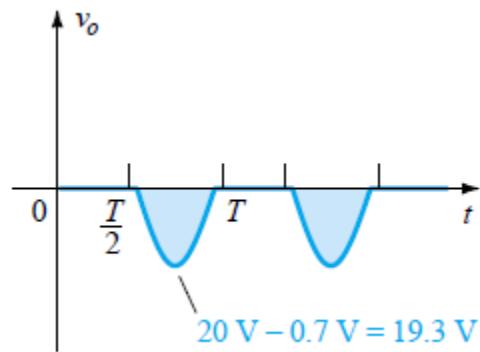


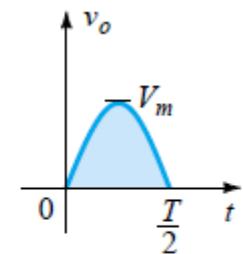
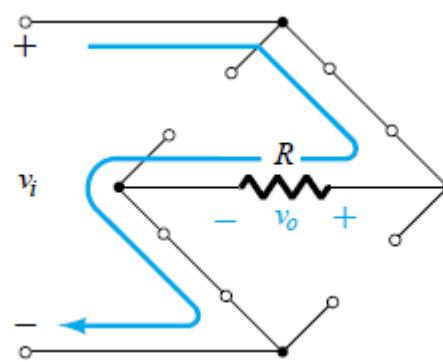
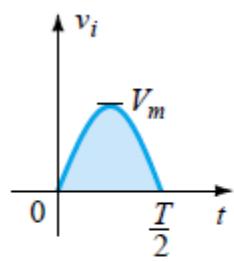
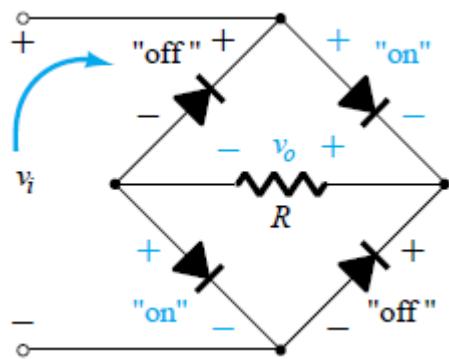
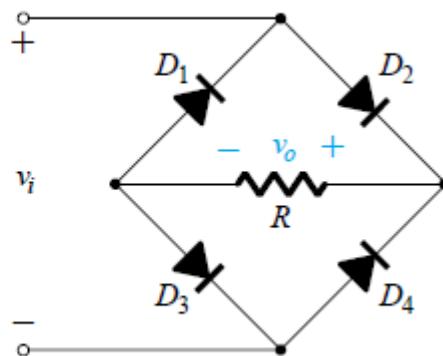
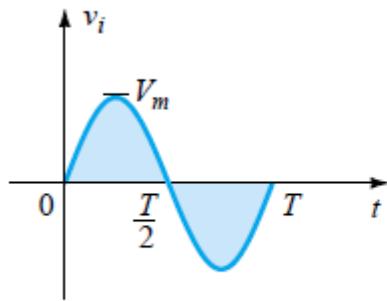
$$V_{dc} \cong 0.318(V_m - V_T)$$

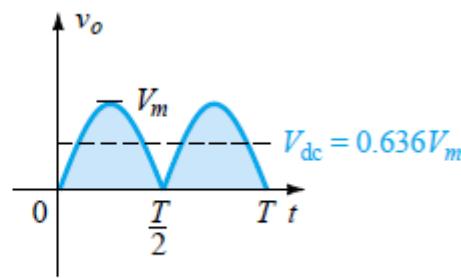
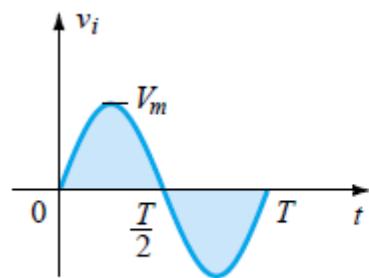
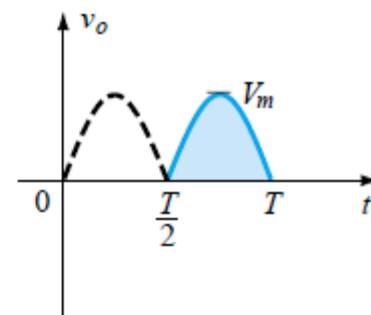
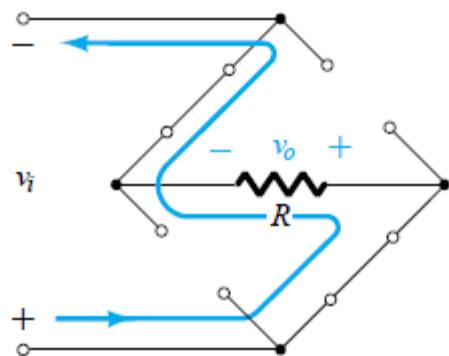
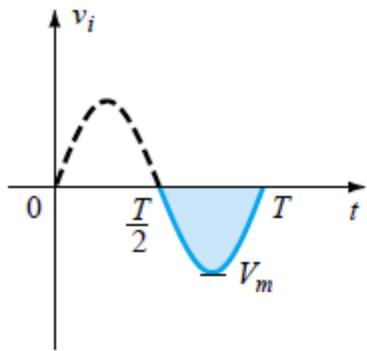


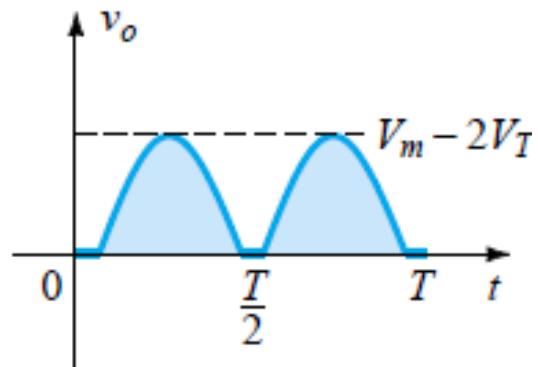
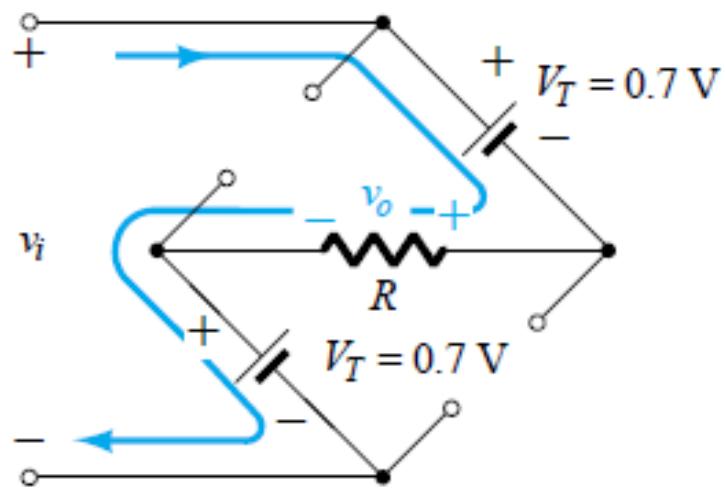
$$V_{dc} = -0.318V_m = -0.318(20 \text{ V}) = -6.36 \text{ V}$$

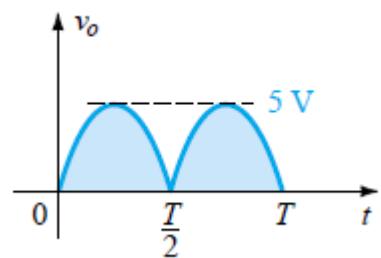
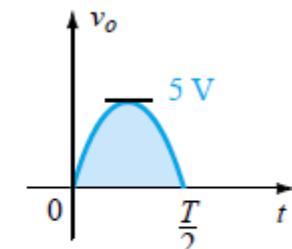
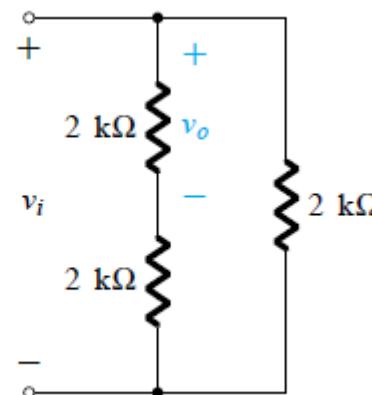
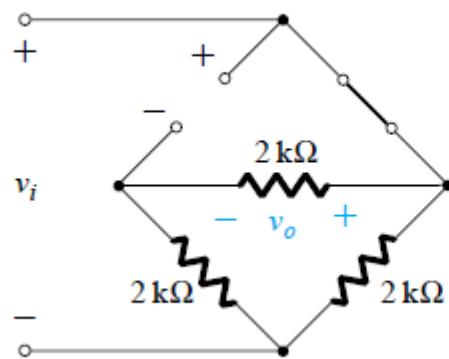
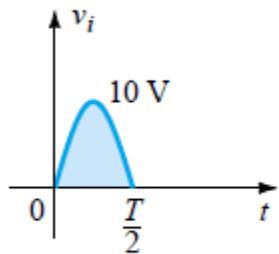
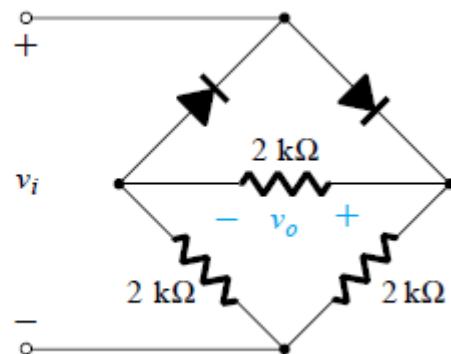
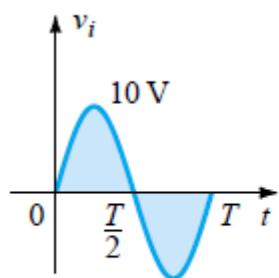


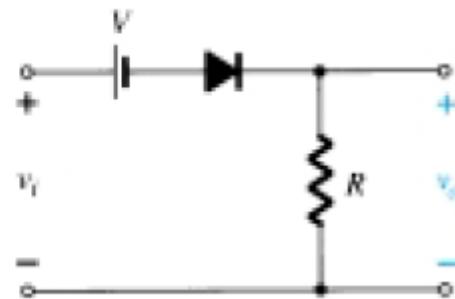
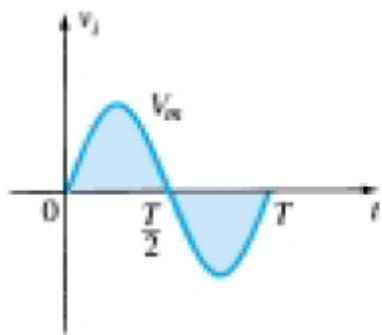
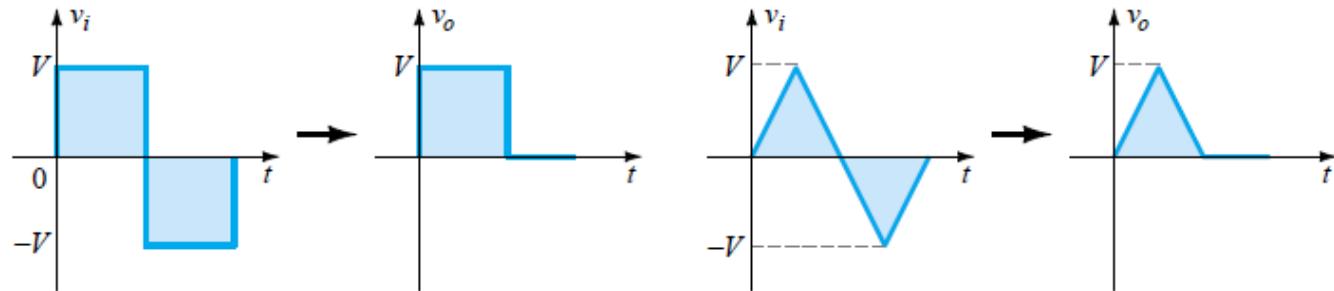
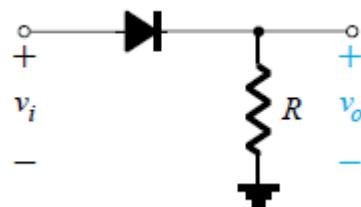
$$V_{dc} \cong -0.318(V_m - 0.7 \text{ V}) = -0.318(19.3 \text{ V}) \cong -6.14 \text{ V}$$

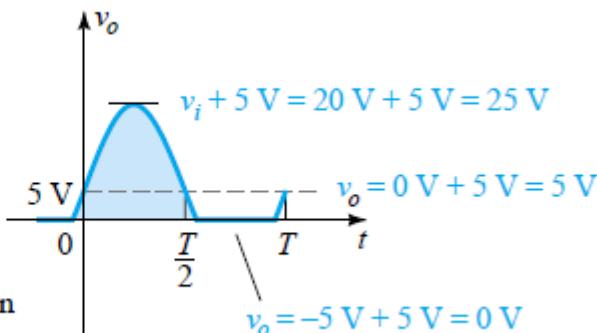
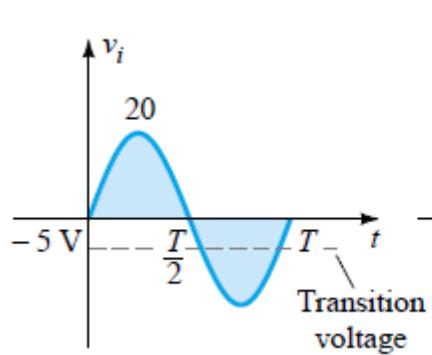
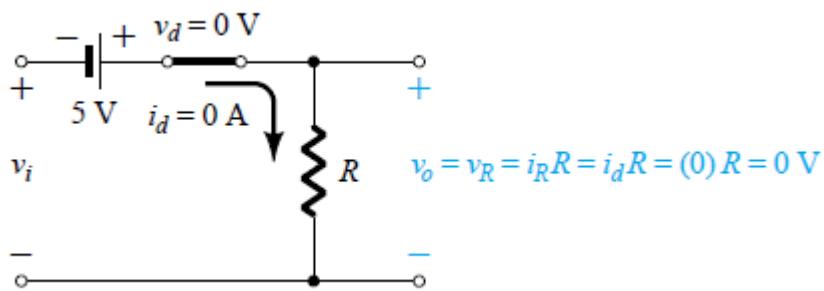
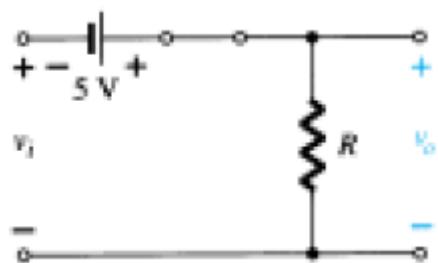
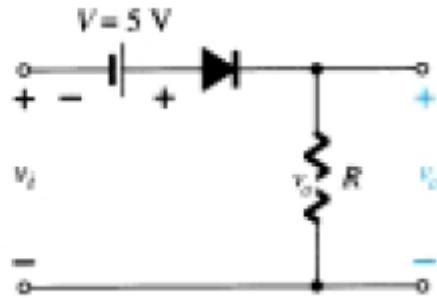
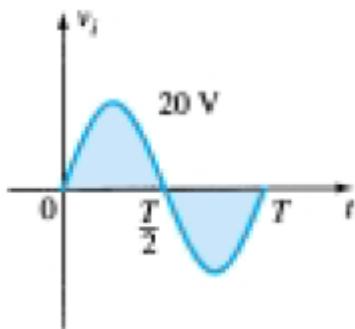


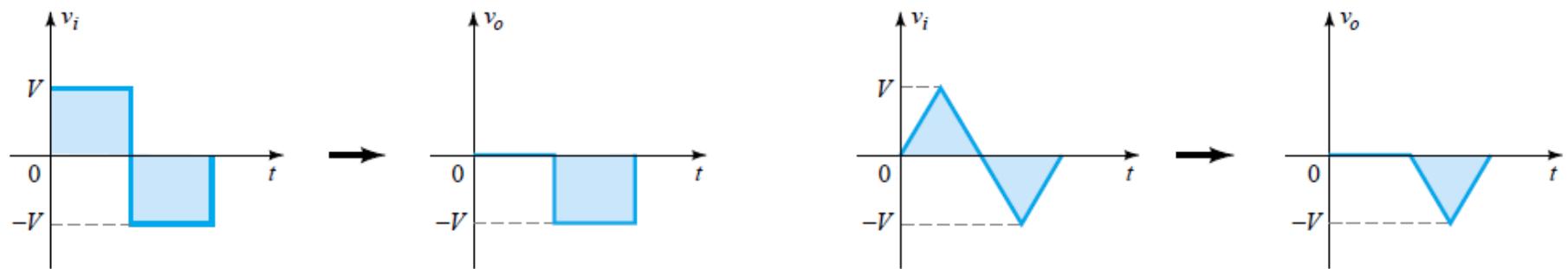
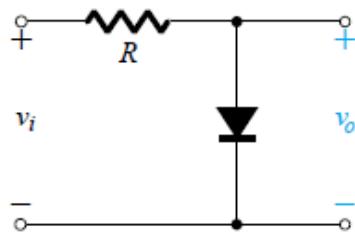


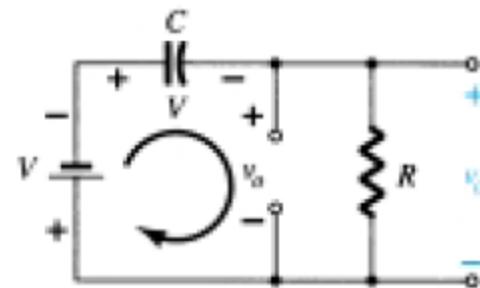
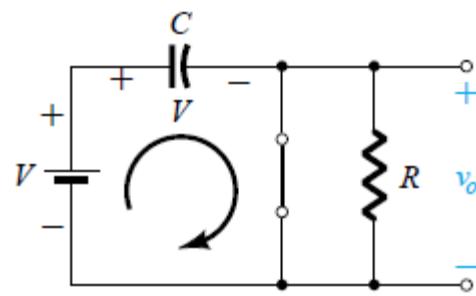
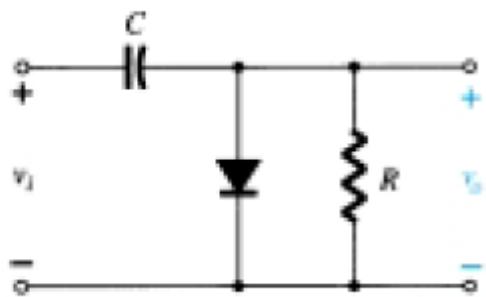
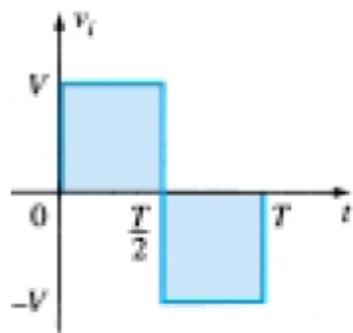












$$-V - V - v_o = 0$$

$$v_o = -2V$$

