Diode:

1.

5. Determine the current I for each of the configurations of Fig. 155 using the approximate equivalent model for the diode.

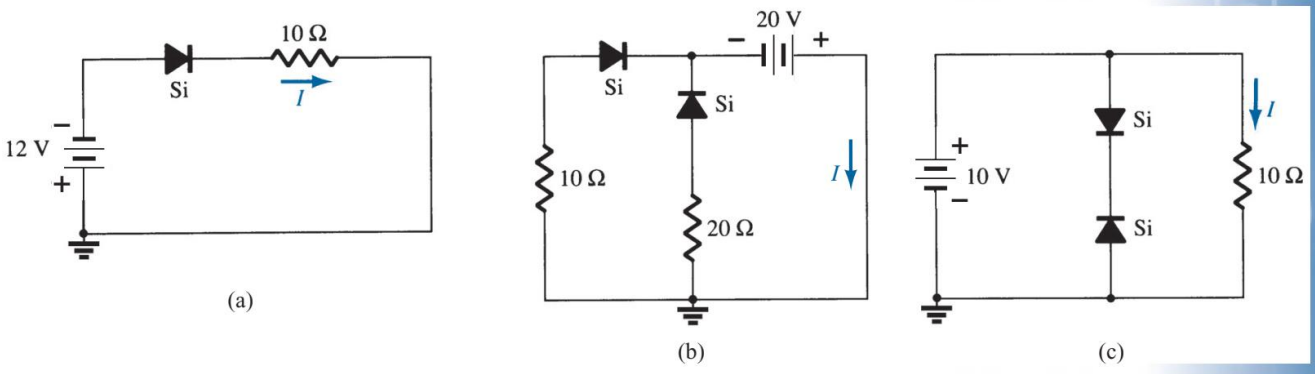


FIG. 155
Problem 5.

2.

6. Determine V_o and I_D for the networks of Fig. 156.

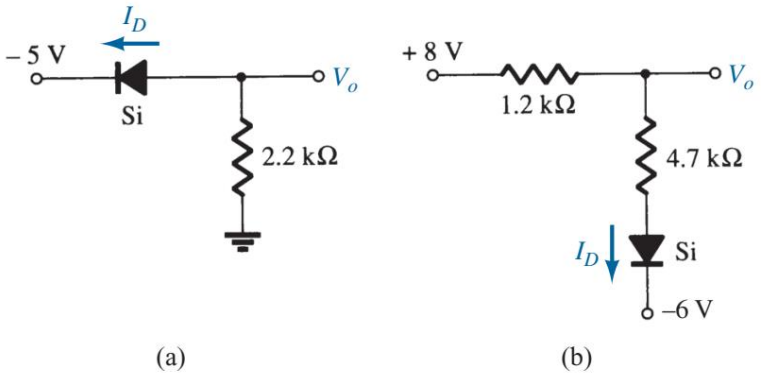


FIG. 156

3.

***7.** Determine the level of V_o for each network of Fig. 157.

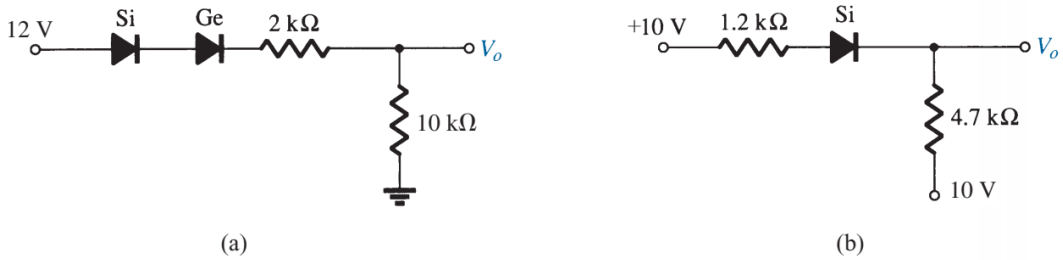


FIG. 157

4.

***8.** Determine V_o and I_D for the networks of Fig. 158.

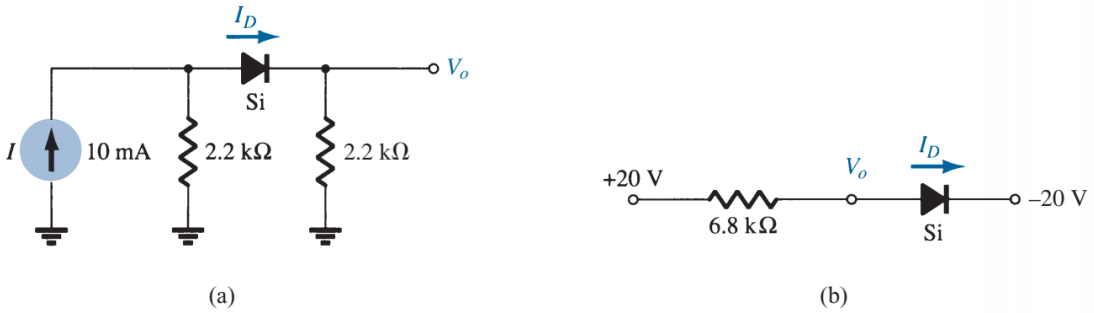


FIG. 158

5.

Determine V_o and I_D for the networks of Fig. 160.

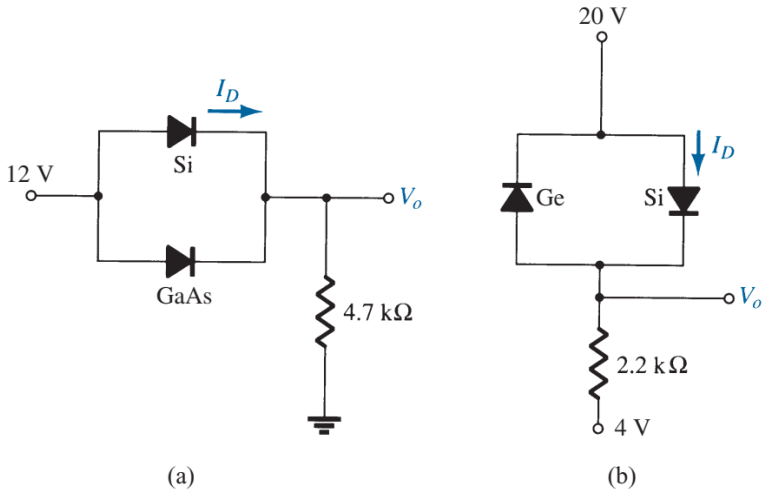


FIG. 160

6.

Determine V_{o_1}, V_{o_2}, and I for the network of Fig. 162.

Determine V_o and I_D for the network of Fig. 163.

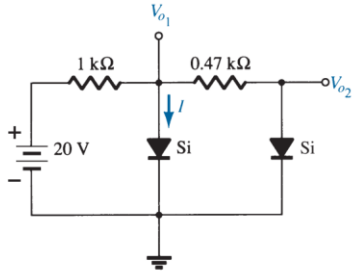


FIG. 162

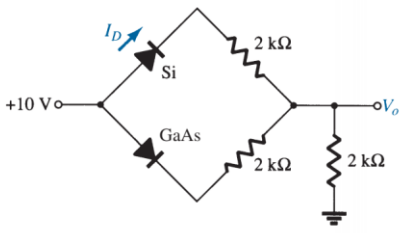


FIG. 163

7.

25. For the network of Fig. 170, sketch v_o and determine V_{dc}.

***26.** For the network of Fig. 171, sketch v_o and i_R.

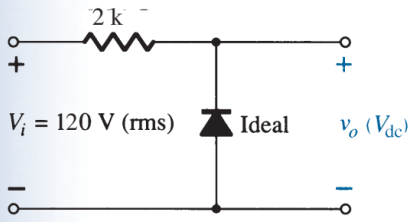


FIG. 170

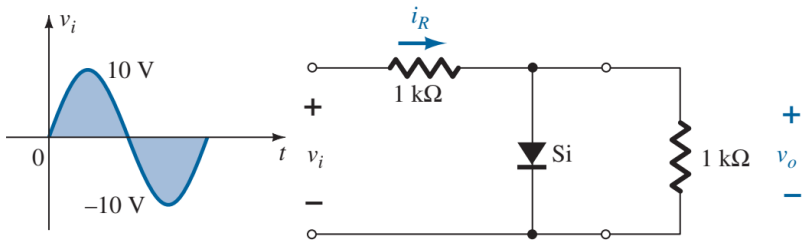


FIG. 171

8.

29. Determine v_o and the required PIV rating of each diode for the configuration of Fig. 173. In addition, determine the maximum current through each diode.

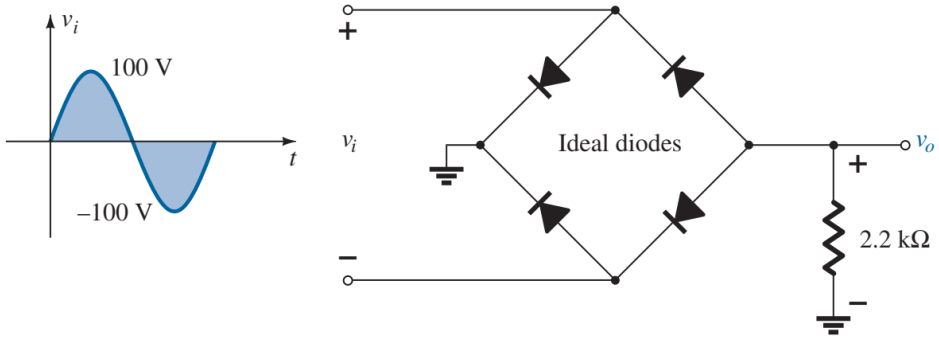


FIG. 173

9.

***30.** Sketch v_o for the network of Fig. 174 and determine the dc voltage available.

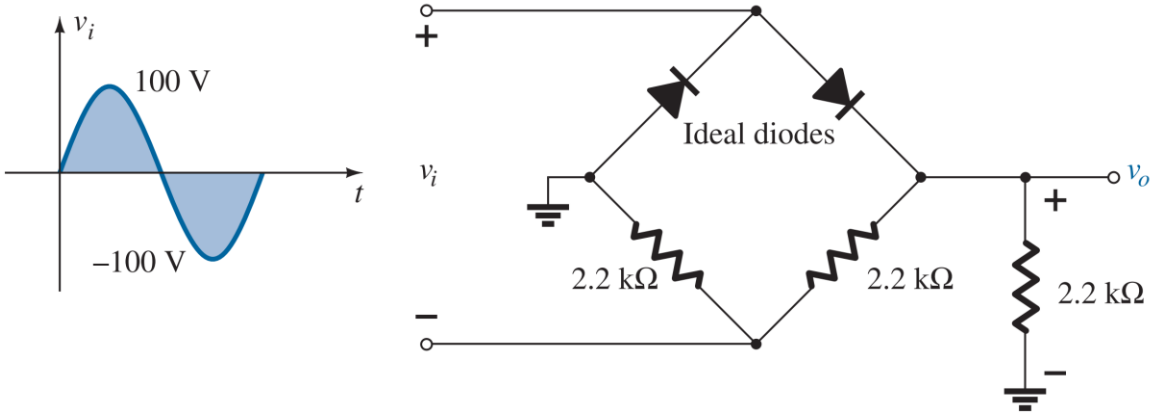


FIG. 174

10.

Determine v_o for each network of Fig. 176 for the input shown.

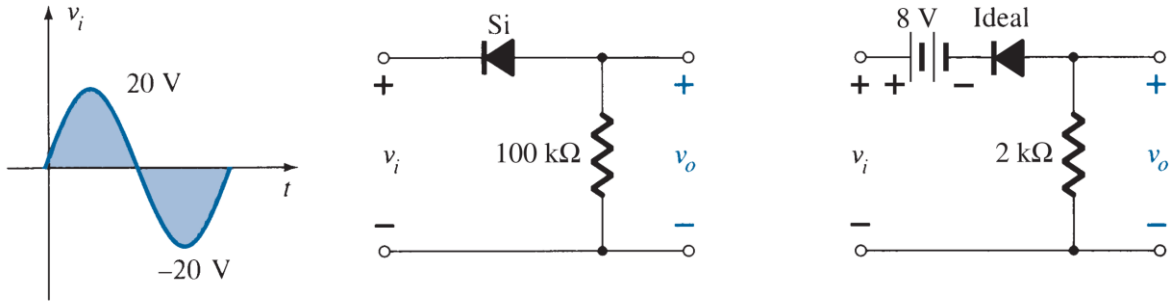
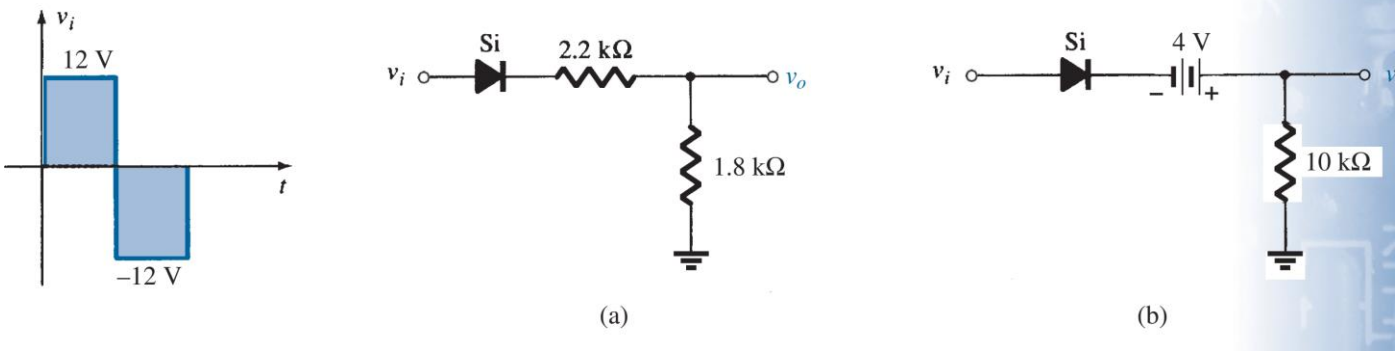


FIG. 176

11.

Determine v_o for each network of Fig. 177 for the input shown.



12.

***35.** Determine v_o for each network of Fig. 179 for the input shown.

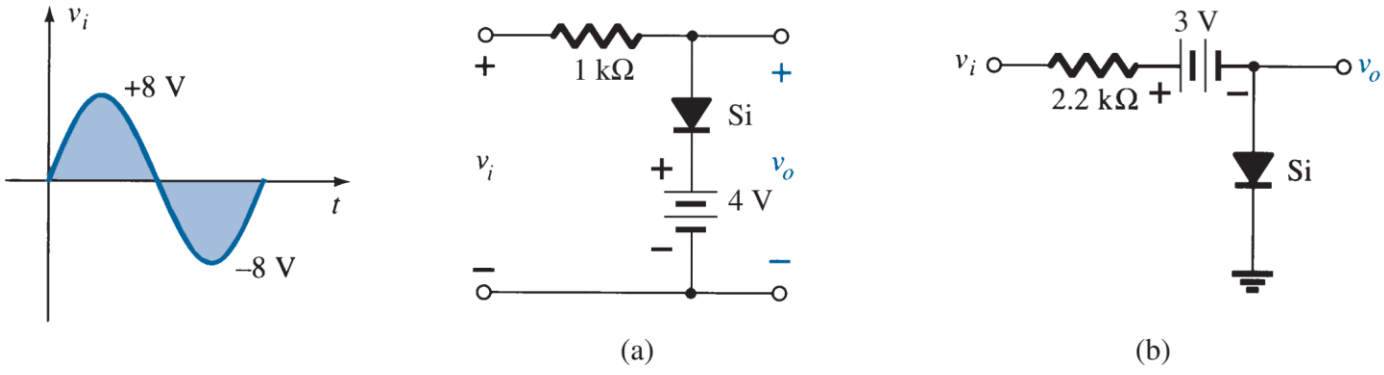


FIG. 179

13.

37. Sketch v_o for each network of Fig. 181 for the input shown.

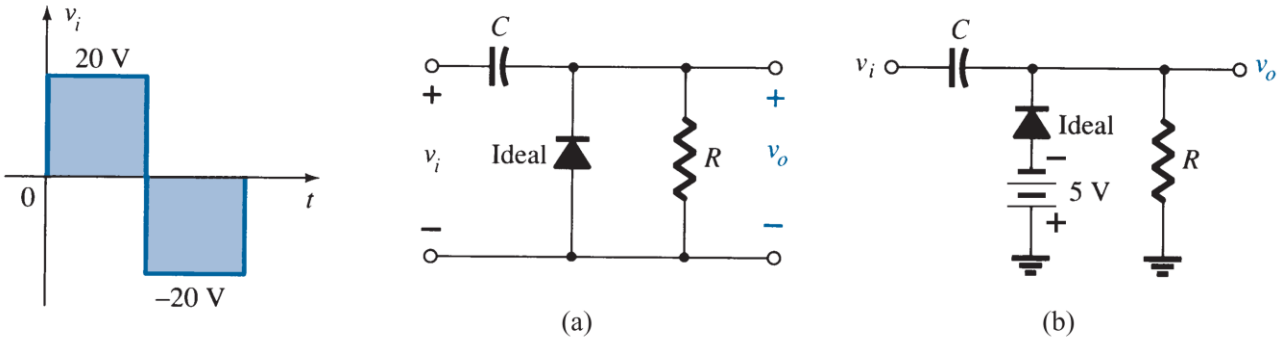


FIG. 181

14.

***41.** Design a clamper to perform the function indicated in Fig. 185.

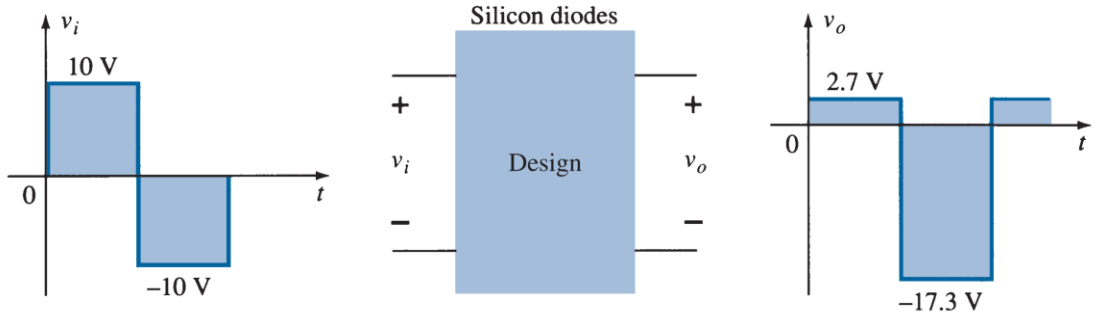


FIG. 185

15.

a. Determine V_L, I_L, I_Z, and I_R for the network of Fig. 186 if $R_L = 180\ \Omega$.
b. Repeat part (a) if $R_L = 470\ \Omega$.
c. Determine the value of R_L that will establish maximum power conditions for the Zener diode.
d. Determine the minimum value of R_L to ensure that the Zener diode is in the "on" state.

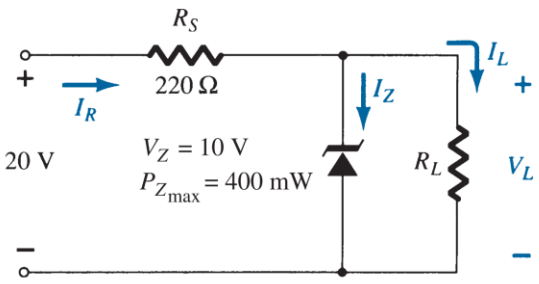


FIG. 186