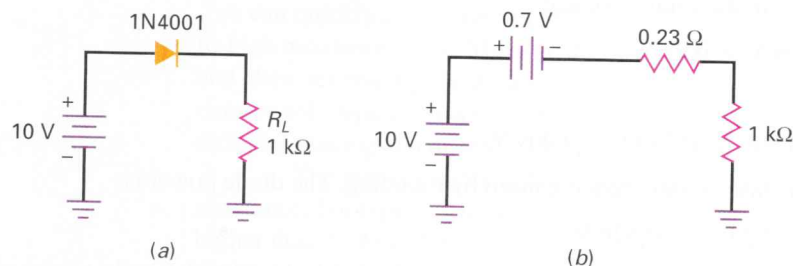


Figure 3-11



Example 3-8

MultiSim

Repeat the preceding example for a load resistance of $10\ \Omega$.

SOLUTION Figure 3-12a shows the equivalent circuit. The total resistance is:

$$R_T = 0.23\ \Omega + 10\ \Omega = 10.23\ \Omega$$

The total voltage across R_T is:

$$V_T = 10\ \text{V} - 0.7\ \text{V} = 9.3\ \text{V}$$

Therefore, the load current is:

$$I_L = \frac{9.3\ \text{V}}{10.23\ \Omega} = 0.909\ \text{A}$$

The load voltage is:

$$V_L = (0.909\ \text{A})(10\ \Omega) = 9.09\ \text{V}$$

Figure 3-12

