Chapter 6, Solution 77.

$i = i_R + i_C$

$$\frac{v_i - 0}{R} = \frac{0 - v_0}{R_F} + C\frac{d}{dt}(0 - v_o)$$

$$R_F C = 10^6 \text{x} 10^{-6} = 1$$

Hence $$v_i = -\left(v_o + \frac{dv_o}{dt}\right)$$

Thus v_i is obtained from v_o as shown below: