63. **SSM** ***REASONING*** The ratio $\left(I_s / I_p\right)$ of the current in the secondary coil to that in the primary coil is equal to the ratio $\left(N_p / N_s\right)$ of the number of turns in the primary coil to that in the secondary coil. This relation can be used directly to find the current in the primary coil.

SOLUTION Solving the relation $\left(I_s / I_p\right) = \left(N_p / N_s\right)$ (Equation 22.13) for I_p gives

$$I_p = I_s\left(\frac{N_s}{N_p}\right) = (1.6\text{ A})\left(\frac{1}{8}\right) = \boxed{0.20\text{ A}}$$