



■ **FIGURE 10.4** A series RL circuit for which the forced response is desired.

SINUSOIDAL STEADY STATE ANALYSIS

The term steady-state response is used synonymously with forced response, and the circuits we are about to analyze are commonly said to be in the “sinusoidal steady state.” Unfortunately, steady state carries the connotation of “not changing with time” in the minds of many students. This is true for dc forcing functions, but the sinusoidal steady-state response is definitely changing with time. The steady state simply refers to the condition that is reached after the transient or natural response has died out.