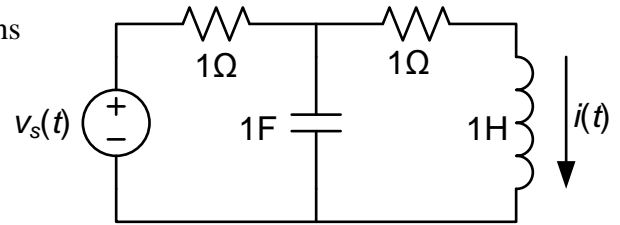


**P1 Concept:** Equivalent system representations

**Find:** Given the circuit with input  $v_s(t)$ , output  $i(t)$  find:  
a) system transfer function  $H(s)$   
b) s-plane plot  
c) differential equation  
d) impulse response  $h(t)$



**Hint:** Its impulse response oscillates with a frequency of  $\omega = 1$  rad/sec