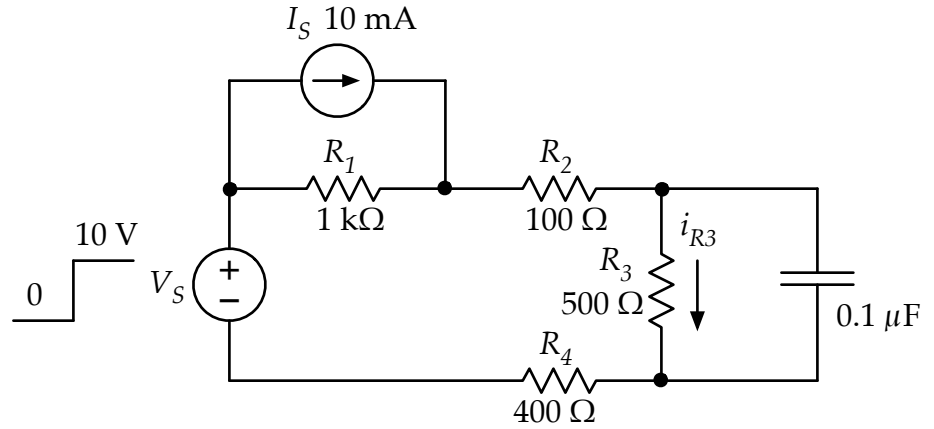


For the circuit shown, the voltage source jumps abruptly from 0 to 10 V at $t = 0$. Find the expression of $i_{R3}(t)$ for $t > 0$. Find the time at which the current has gone half-way from its initial value to its final value.



Hints: When $V_S = 0$, it behaves like a short-circuit. Also, note how i_{R3} relates to v_C .

$i_{R3}(t) =$ _____

t (half-way) = _____