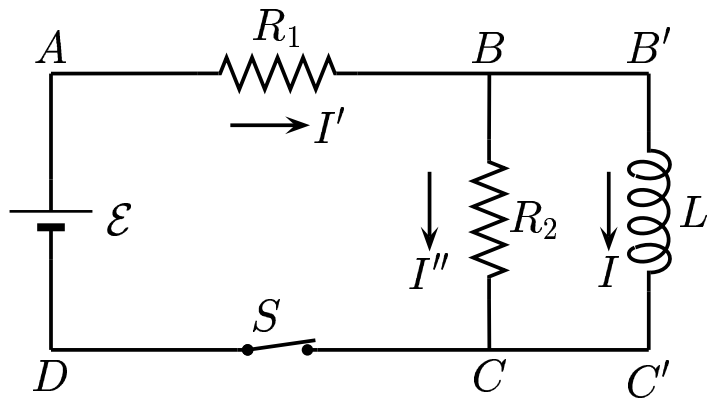


Consider the RL circuit shown below. Switch S is closed at $t = 0$.



Find the current I through L at $t = 0_+$.

- A) $I = 0$.
- B) $I = \frac{\mathcal{E}}{R_1}$.
- C) $I = \frac{\mathcal{E}}{R_1 + R_2}$.
- D) $I = \frac{\mathcal{E}}{R_2}$.

At $t = 0_+$, the flux in the inductor is zero $\Phi_B = 0$. Also, $\mathcal{E} = \frac{dL}{dt}$ is

maximum and equal to V_{R_2} .

Thus, the current through the inductor is zero $I = 0$.

Answer **A**.

32.02-03 RL Circuit with 2 loops 2004-11-9