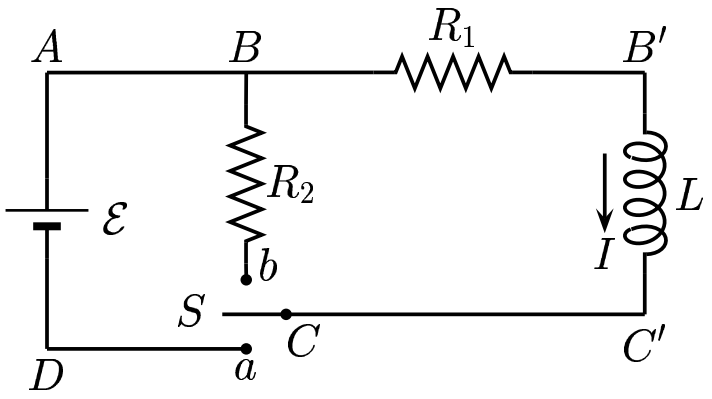
Consider the setup. Close S to the position "a" at $t = 0$.



Find I_∞, *i.e.* the current flowing through L at a large t.

A) $I_\infty = \dfrac{\mathcal{E}}{R_1}$.

B) $I_\infty = \dfrac{\mathcal{E}}{R_2}$.

C) $I_\infty = \mathcal{E}\left(\dfrac{1}{R_1} + \dfrac{1}{R_2}\right)$.

D) $I_\infty = \mathcal{E}\left(\dfrac{1}{R_1\, R_2}\right)$.

At large t, one expects that the current through L should reach a steady state. So the potential drop across L is 0. Here the inductor may be considered as a piece of wire. Therefore current through L is given by $\dfrac{\mathcal{E}}{R_1}$.

Answer **A**.