Three identical bulbs are connected in two ways as shown.

\[ \text{CASE I} \]
\[ \text{CASE II} \]

Determine \( \frac{P_{II}}{P_I} \), where \( P_I \) is the power per bulb in \( \text{CASE I} \), and \( P_{II} \) is in \( \text{CASE II} \).

A) \( \frac{P_{II}}{P_I} = 9 \)

B) \( \frac{P_{II}}{P_I} = 3 \)

C) \( \frac{P_{II}}{P_I} = \frac{1}{3} \)

D) \( \frac{P_{II}}{P_I} = \frac{1}{9} \)
\[ \frac{P_{II}}{P_I} = \frac{\frac{V^2}{R}}{(V/3)^2} = 9 \]