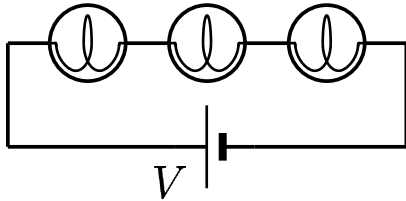
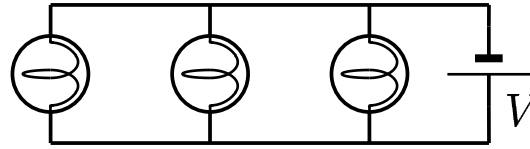


Three identical bulbs are connected in two ways as shown.



CASE I



CASE II

Determine  $\frac{P_{II}}{P_I}$ , where  $P_I$  is the power per bulb in CASE I, and  $P_{II}$  is in 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)  $\frac{P_{II}}{P_I} = \frac{1}{9}$

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$$\frac{P_{II}}{P_I} = \frac{\frac{V^2}{R}}{\frac{(V/3)^2}{R}} = 9$$

Answer **A**.