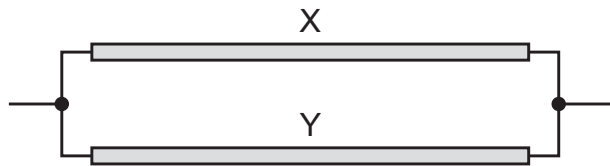


- 36** Two identical wires X and Y, each of length L and radius r , are connected in parallel as shown.



The total resistance of this combination is R_1 .

Wire X is replaced with a wire of the same material with length L and radius $2r$.

The total resistance of the new combination is R_2 .

What is the ratio $\frac{R_1}{R_2}$?

A $\frac{2}{5}$

B $\frac{2}{3}$

C $\frac{3}{2}$

D $\frac{5}{2}$