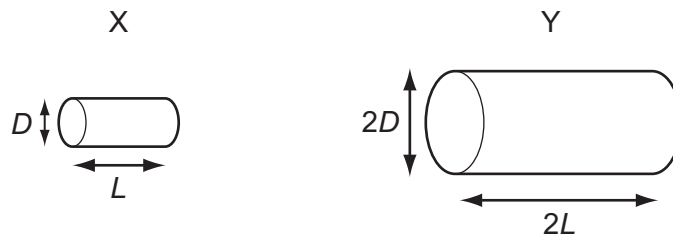**34** Two electrically-conducting cylinders X and Y are made from the same material.

Their dimensions are as shown.

The resistance of each cylinder is measured between its ends.

What is the ratio $\dfrac{\text{resistance of X}}{\text{resistance of Y}}$?

A $\dfrac{2}{1}$ **B** $\dfrac{1}{1}$ **C** $\dfrac{1}{2}$ **D** $\dfrac{1}{4}$

Space for working