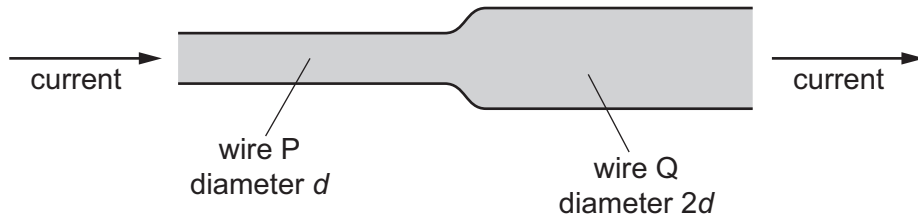**34** Two copper wires are joined together and carry a current, as shown.

Wire P has diameter d and wire Q has diameter $2d$.

What is the ratio $\dfrac{\text{average drift speed of the free electrons in wire P}}{\text{average drift speed of the free electrons in wire Q}}$?

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