**29** In the lungs, there are tiny sacs of air known individually as alveolus. The average diameter of an alveolus is 0.250 mm. Consider an oxygen molecule of mass $5.30 \times 10^{-26}$ kg that is trapped in an alveolus.

What is the order of magnitude of the uncertainty in the velocity of this oxygen molecule?

**A** $10^{-5}$ m s$^{-1}$

**B** $10^{-8}$ m s$^{-1}$

**C** $10^{-10}$ m s$^{-1}$

**D** $10^{-12}$ m s$^{-1}$