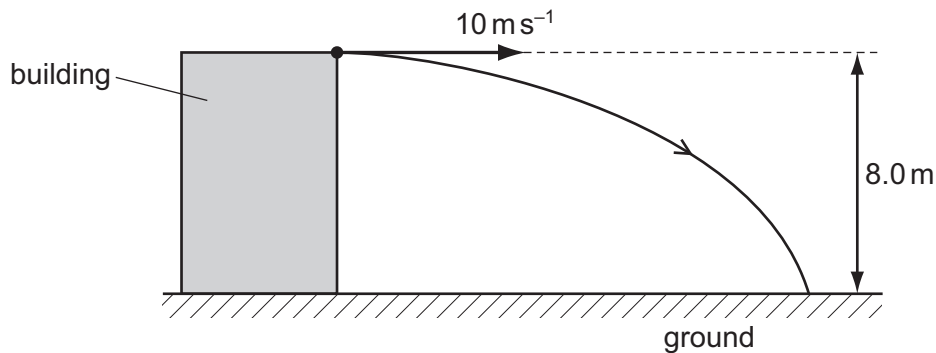**9** A boy throws a stone with a horizontal velocity of $10\,\text{m}\,\text{s}^{-1}$ from the top of a building. The height of the building is 8.0 m. The stone travels along a curved path until it hits the ground, as shown in the diagram.

How long does it take the stone to reach the ground? (Air resistance can be neglected.)

A 0.61 s   **B** 0.80 s   **C** 1.3 s   **D** 1.6 s