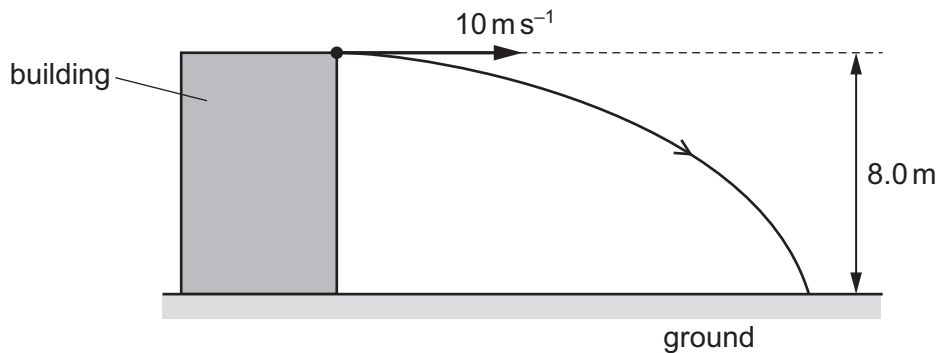4 A boy throws a stone with a horizontal velocity of $10\,\text{m s}^{-1}$ from the top of a building. The height of the building is $8.0\,\text{m}$. The stone travels along a curved path until it hits the horizontal ground, as shown.

Air resistance is negligible.

How long does it take the stone to reach the ground?

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