

- 5 An object is projected from horizontal ground at a velocity of magnitude u and angle θ to the horizontal. It hits the ground at a time t after it is projected. Assume air resistance is negligible.



Which statement does **not** describe the motion of this object?

- A The horizontal component of the object's velocity is constant and has the value $u\cos\theta$.
- B The horizontal distance travelled by the object is $t\cos\theta$.
- C The time taken for the object to reach maximum height is $\frac{t}{2}$.
- D The vertical component of the object's velocity is constant and has the value $u\sin\theta$.