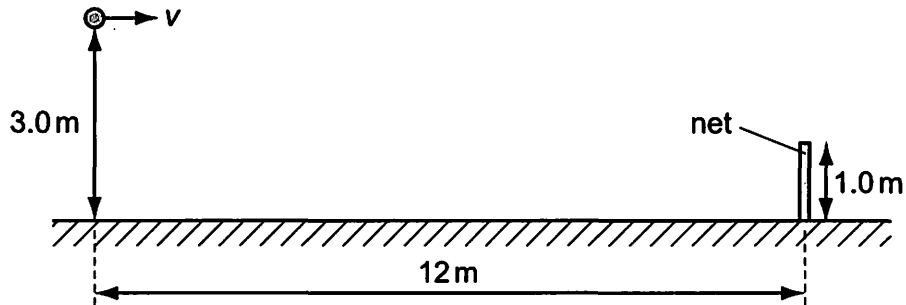5   In a tennis match, a ball is hit horizontally with a speed v, as shown in the diagram.

The bottom of the ball is initially 3.0 m above the ground and a horizontal distance of 12 m from the net.

The ball just clears the net, which is 1.0 m high.

What is the value of v? (Neglect the effects of air resistance.)

A $16\,\text{ms}^{-1}$ B $19\,\text{ms}^{-1}$ C $30\,\text{ms}^{-1}$ D $38\,\text{ms}^{-1}$