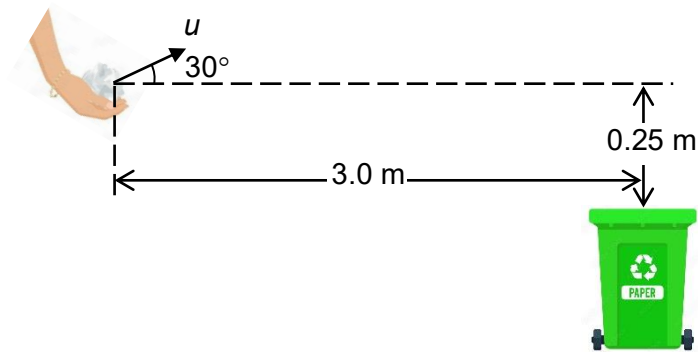**2**   A student attempts a long distance shot with a crushed paper ball as shown in the diagram below (not to scale).

The horizontal distance between the centre of mass of the ball and the centre of the trash bin is 3.0 m, while the vertical distance between them is 0.25 m. The ball is shot at an angle of 30° above the horizontal, with an initial speed u.

Which value should u be, in order for the crushed paper ball to enter the trash bin?

A   5.4 m s^{-1} **B**   6.3 m s^{-1} **C**   30 m s^{-1} **D**   40 m s^{-1}