A small ball is projected from a point O on horizontal ground at an angle of 30° above the horizontal. At time t s after projection the vertically upwards displacement of the ball from O is $(14t - kt^2)$ m, where k is a constant.

(i) State the value of k. [1]

(ii) Show that the initial speed of the ball is $28\,\text{m}\,\text{s}^{-1}$. [2]

(iii) Find the horizontal displacement of the ball from O when $t = 3$. [2]