A particle P is projected with speed $u\,\mathrm{m\,s}^{-1}$ at an angle $\tan^{-1}2$ above the horizontal from a point O on a horizontal plane and moves freely under gravity. When P has travelled a distance $56\,\mathrm{m}$ horizontally from O, it is at a vertical height $H\,\mathrm{m}$ above the plane. When P has travelled a distance $84\,\mathrm{m}$ horizontally from O, it is at a vertical height $\frac{1}{2}H\,\mathrm{m}$ above the plane.

Find, in either order, the value of u and the value of H. [5]