

Answer on Question #67800- Physics / Mechanics / Relativity

(Question1) the speed of 90 hm /hr is equal to_____ m/s.

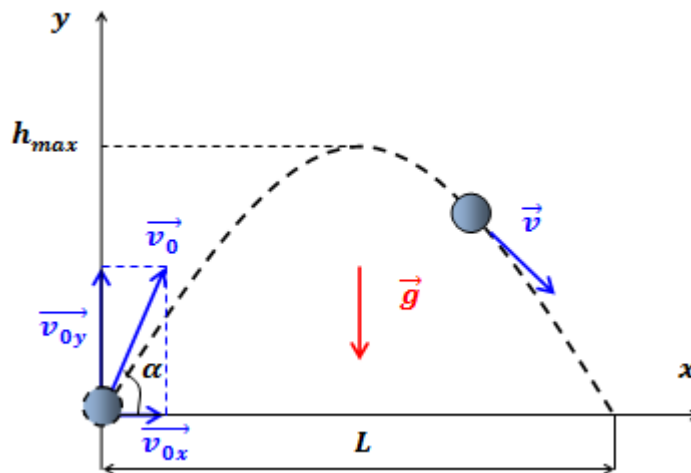
Solution:

$$90 \frac{\text{hm}}{\text{hr}} = 90 \frac{1000 \text{ m}}{3600 \text{ s}} = 25 \frac{\text{m}}{\text{s}}.$$

Answer: $90 \frac{\text{hm}}{\text{hr}} = 25 \frac{\text{m}}{\text{s}}.$

(Question2) the trajectory of a projectile is

Solution:



The trajectory of a projectile is given by equation

$$y(x) = x \tan \alpha - \frac{gx^2}{2v_0^2 \cos^2 \alpha}.$$

This equation defines the parabola.

Thus, trajectory of a projectile without air resistance is parabola.

Answer: parabola.

Answer provided by <https://www.AssignmentExpert.com>