

Answer on Question 38283, Mechanics, Kinematics, Dynamics Let us write down the equation for vertical velocity

$$v_y = -gt$$

the horizontal velocity is constant, $v_x = v_{x0} = \text{const.}$ Hence, total velocity after 1 second is

$$v = \sqrt{v_x^2 + v_y^2} = \sqrt{(gt)^2 + v_{x0}^2} = \sqrt{10 + 10} = \sqrt{20} \approx 4.47 \text{ m/s}$$