

[07-12-12-T11]

Projectile motion

[1] A projectile is fired from a height of 6 m parallel to level ground with a horizontal velocity 500 m/s . How far away does it land?

[2] A projectile is fired from a height of 0 m with a velocity of $500\frac{\text{m}}{\text{s}}$ at an angle of 60° with respect to level ground.

[a] What is the duration of its flight?

[b] How far away does it land?

[3] A projectile is fired from a height of 0 m with a velocity of $100\frac{\text{m}}{\text{s}}$. At what angle θ_0 must it be fired to hit a target on the ground 500 m away?