

4. Projectile Fired at an angle - Word Problems

Ex) An athlete doing a running jump leaves ground at an angle of 25° and a velocity of 10m/s.

a) What is the initial vertical component (V_{iy}) of the athlete's velocity?

(b) How long does it take for the athlete to reach her maximum height?

c) How long did it take for the athlete to complete the entire jump?

Total time equals _____

(d) How far did she jump?

Ex) A projectile leaves ground at an angle of 60° and a speed of 100 m/s.

(a) Find the initial vertical component of the object's velocity

Find the objects maximum height.

Ex) A rock is thrown from a cliff with initial speed of 40m/s at an angle of 45° below the horizontal.

a) What is the vertical component of the initial velocity?

(b) If the rock strikes ground in 1 sec what is height of cliff.