Extra projectile Motion Problems

\*\*Assume zero air resistance for all problems\*\*

1. An object hits the ground (height = 0) at an angle of 62°, relative to horizontal. Prior to hitting the ground, its X displacement was 3m. When it hits the ground, its y-velocity is -10m/s. Find “everything:”

* Initial velocities (x, y, and overall speed)
* Launch angle
* Time aloft
* Initial height
* Final velocities (x and overall speed)

2. An apple is dropped out of the window of a moving car. If the car was traveling a speed of 20m/s, and the apple travels a horizontal distance of 11m, what was the height of the apple’s release point?

**Solutions on Next Page**

**A close-up of math equations

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