

Five Easy Projectile Problems

1. A ball moving 3.00 m/s rolls off of a table that is 1.30 m high. Find the horizontal distance the ball lands from the end of the table.
2. A ball rolls off of a table that is 0.700 m high. It lands a horizontal distance 1.50 m from the end of the table. Find the speed at which the ball was moving when it rolled off the table.
3. A cannonball is launched from the ground with a velocity of 60.0 m/s at 30.0° above horizontal. How far does the ball travel horizontally before it hits the ground?
4. The cannon is brought to a height of 6.00 m above the ground. The cannonball leaves the cannon with a velocity of 60.0 m/s at 60.0° above horizontal. How far does the ball travel horizontally before it hits the ground?
5. A T-Shirt is launched from the field to a balcony. It hits a fan on the balcony on its way down. The launcher is held at an angle of 75.0° above horizontal. The fan is 12 m above the launcher. The launcher can fire a t-shirt with a speed of 50.0 m/s . What is the horizontal distance between the fan and the launcher?