

1. A ball is thrown with an angle of 12° to the horizon with a speed of 15m/s . What are its horizontal and vertical components?
2. A frog falls from a tree (silly frog!). How much time does it take the frog to fall a distance of 12m ? How fast is the frog falling at this point?
3. A cannon shoots a large cannonball. The cannonball has an initial speed of 125m/s . If the elevation angle was 32° , what is the horizontal distance that the cannonball travels?
4. A ball is thrown at some angle. The ball is in the air for 4.5s before it hits the ground. If it travels 45.0 meters before it hits the ground, what was the initial velocity of the ball?
5. A crow flies carrying a shiny rock. The crow reaches an altitude of 65m and is flying at 34.5km/h . It releases the rock. Find the time it will take the rock to hit the ground below, the horizontal distance the rock will travel before it hits, and the speed of the rock when it hits the ground.
6. A ball rolls across a table with constant velocity. The ball is traveling at speed v . The table is a distance h above the deck below. How far from the edge of the table does the ball travel before it hits the deck?