**Two Dimensional Problems**

1. A boy throws a marshmallow that it lands in his friend’s mouth 4 m away. The boy threw the marshmallow at an angle of 30°.
2. A picnic basket falls out of a hot air balloon that is traveling horizontally at 14 m/s. The hot air balloon is at an altitude of 325 m. Where does the picnic basket land relative to where it was dropped from?
3. A chemistry lab manual slides off a horizontal table top with a velocity speed of 2.25 m/s. It strikes the floor in 0.6 s.
4. On the open seas, a cannonball is shot from a cannon at 12 m/s at an angle of 35° above horizontal. It leaves the cannon on the ships deck 4 m above the ocean and lands on another ship’s deck 2 m above the ocean.