Work Power &Energy (WORKSHEET 6)

1. An object of mass 0.4kg moving with a velocity of 4m/s collides with another object of mass 0.6kg moving in same direction with a velocity of 2m/s. If the collision is perfectly inelastic, what is the loss of K.E. due to impact?

2. Prove that in an elastic collision in one dimension the relative velocity of approach before impact is equal to the relative velocity of separation after impact?

3. Derive expression for inelastic collision in one dimension

4. Derive expression for inelastic collision in two dimension

5. Give three Examples of elastic and inelastic collision.