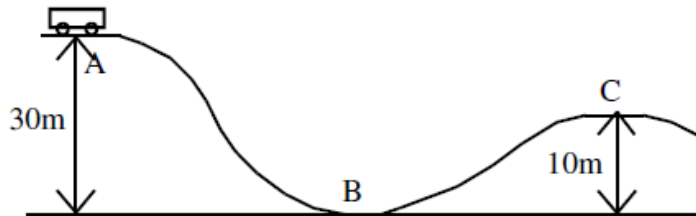


Energy Review Worksheet 1 (No elastic energy or power)

Name: \_\_\_\_\_

1. How much work does it take to accelerate a 1000 kg car from rest to 50 m/s?
2. How much work does it take to stop a 1000 kg car traveling at 50 m/s?
3. A baseball (mass = .14 kg) initially traveling at 40 m/s moves a fielder's glove backward .2 meters when the ball is caught. What was the average amount of force exerted by the ball on the glove?
4. Tarzan is running at a top speed of 8 m/s and grabs a vine hanging vertically from a tall tree in the jungle. How high can he swing upward?
5. A projectile is fired at an upward angle of 60 degrees with a speed of 100 m/s. It lands on a plateau 150 meters higher. What is the projectile's speed the moment before it strikes the plateau?



6. A rollercoaster passes point A with a speed of 1.2 m/s. Assume no friction, find the speed of the roller coaster at point B.
7. A rollercoaster passes point A with a speed of 1.2 m/s. Assume no friction, find the speed of the roller coaster at point C.
8. If there is friction and the average friction equals  $1/6$  of the weight, with what speed will it reach point B? The distance traveled between A and B is 60 meters.