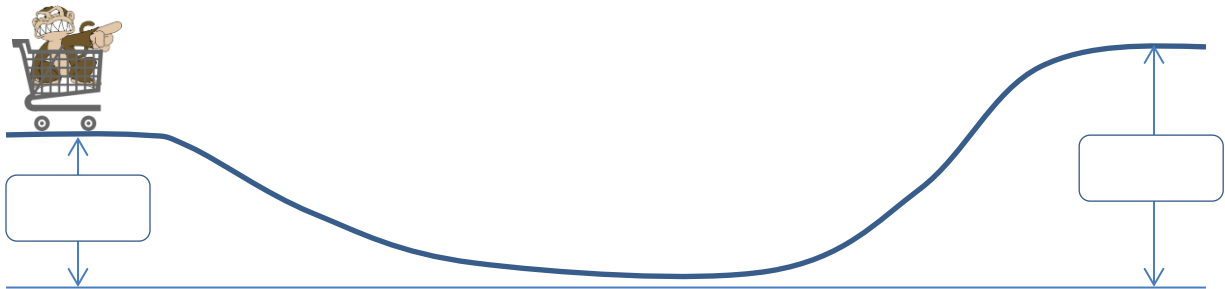


Conservation of Energy Problem – Examples

Name: _____ Date: _____

1. Matrix the monkey is riding in a cart at the top of a 4 m high hill. Chuck Norris the Duck, being evil, covers M² eyes so he cannot see how fast he is travelling. The cart suddenly begins to accelerate down the hill and up another hill which is 7 m high. At this point CND releases his hands and Matrix is able to see that he is moving at 7 m/s. Calculate the speed of the cart at the top of the first hill.



2. A catapult is used to launch a cat from the top of a cliff to the ground 120 m below (to land safely in a swamp...of course). If the cat is launched at an angle of 70° to the horizontal with a speed of 120 m/s calculate the speed of the cat at impact with the murky water.

