

## CP Physics - Inelastic Collision Problem

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

Mr. Cote' fires a .22 caliber rifle at a 0.40kg block of wood. The rifle and the wood are mounted on carts that sit on an air track, so that friction is negligible. The 5.0kg gun fires a 0.030kg bullet with a speed of 300m/s

- a) What is the final velocity of the block of wood with the bullet lodged inside?
- b) What is the recoil velocity of the gun?