



4. A gunman shoots from a riffle in a horizontal direction without correcting for gravity. How much below the intended target, at a horizontal distance  $d$ , will the bullet strike if its initial speed is  $v_0$ ?

5. A ship crosses a river aiming at the angle  $\theta$  to the left from the straight course. The speed of the ship with respect to water is  $v'$ . The width of the river is  $d$  and the water velocity is  $u$  to the right. What will be the side displacement  $h$  of the ship as it lands on the other shore?