

## Serway-Jewett 9.27

Two blocks are free to slide along the frictionless, wooden track shown in the figure. The block of mass  $m_1 = 5.00$  kg is released from the position shown, at height  $h = 5.00$  m above the flat part of the track. Protruding from its front end is the north pole of a strong magnet, which repels the north pole of an identical magnet embedded in the back end of the block of mass  $m_2 = 10.0$  kg, initially at rest. The two blocks never touch.

Calculate the maximum height to which  $m_1$  rises after the elastic collision.

