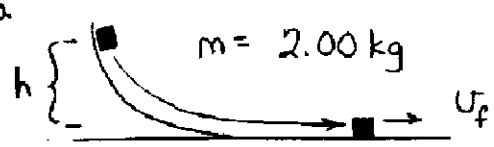
B5.



$h = 3.00\,m$

$v_o = 0$, $v_f = ?$

frictionless, so use Cons. of Mech. Energy

$$KE_f + PE_f = KE_o + PE_o$$

$$KE_f + 0 = 0 + PE_o$$

$$\frac{1}{2}mv_f^2 = mgh$$

$$v_f = \sqrt{2gh}$$

$$v_f = \sqrt{2(9.80\,m/s^2)(3.00\,m)}$$

$$v_f = 7.67\,m/s$$