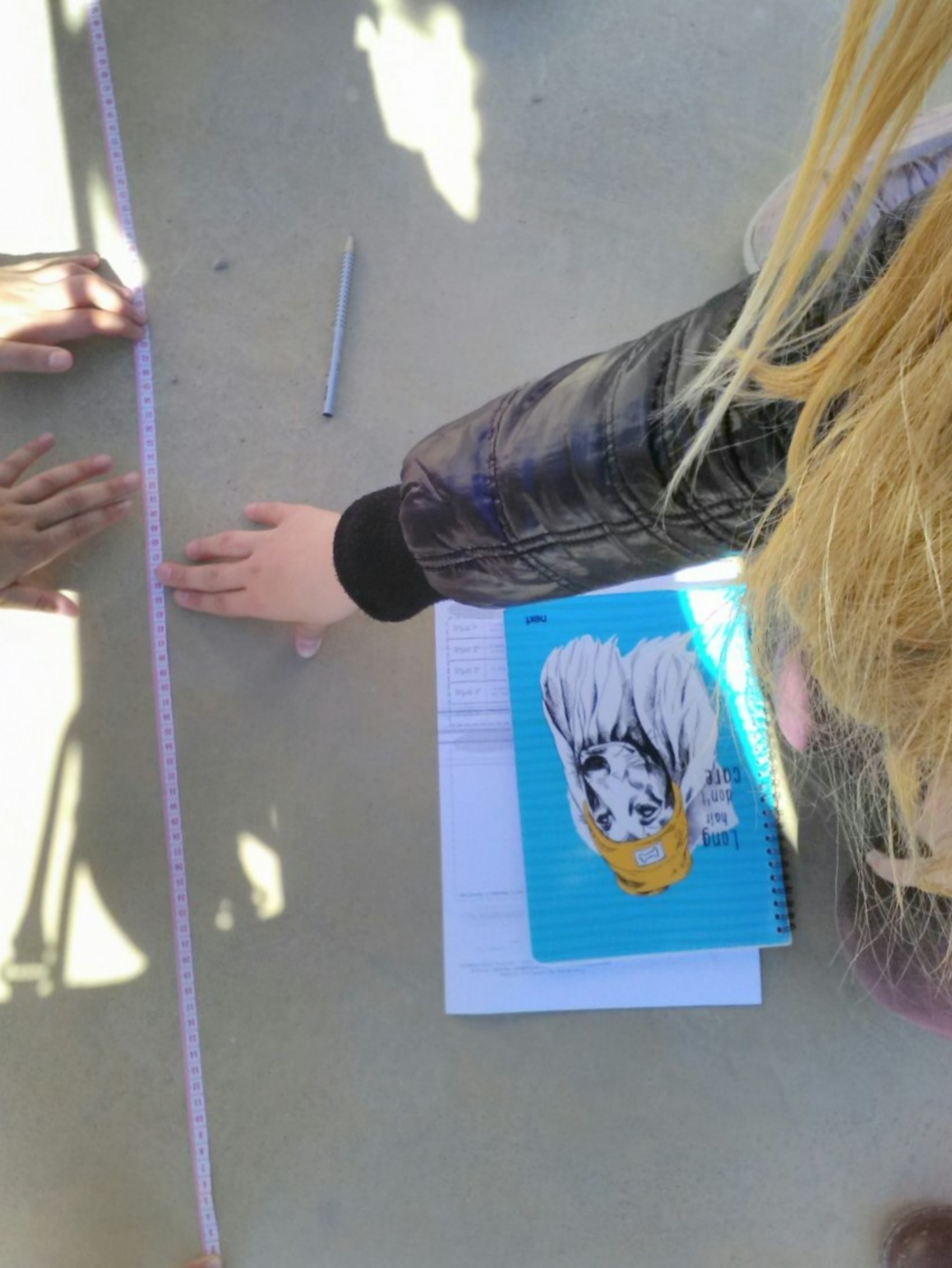
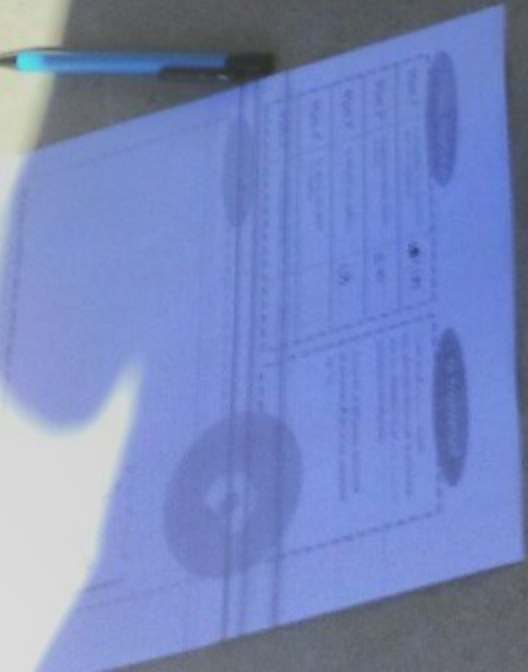


Step 1	Step 2	Step 3	Step 4





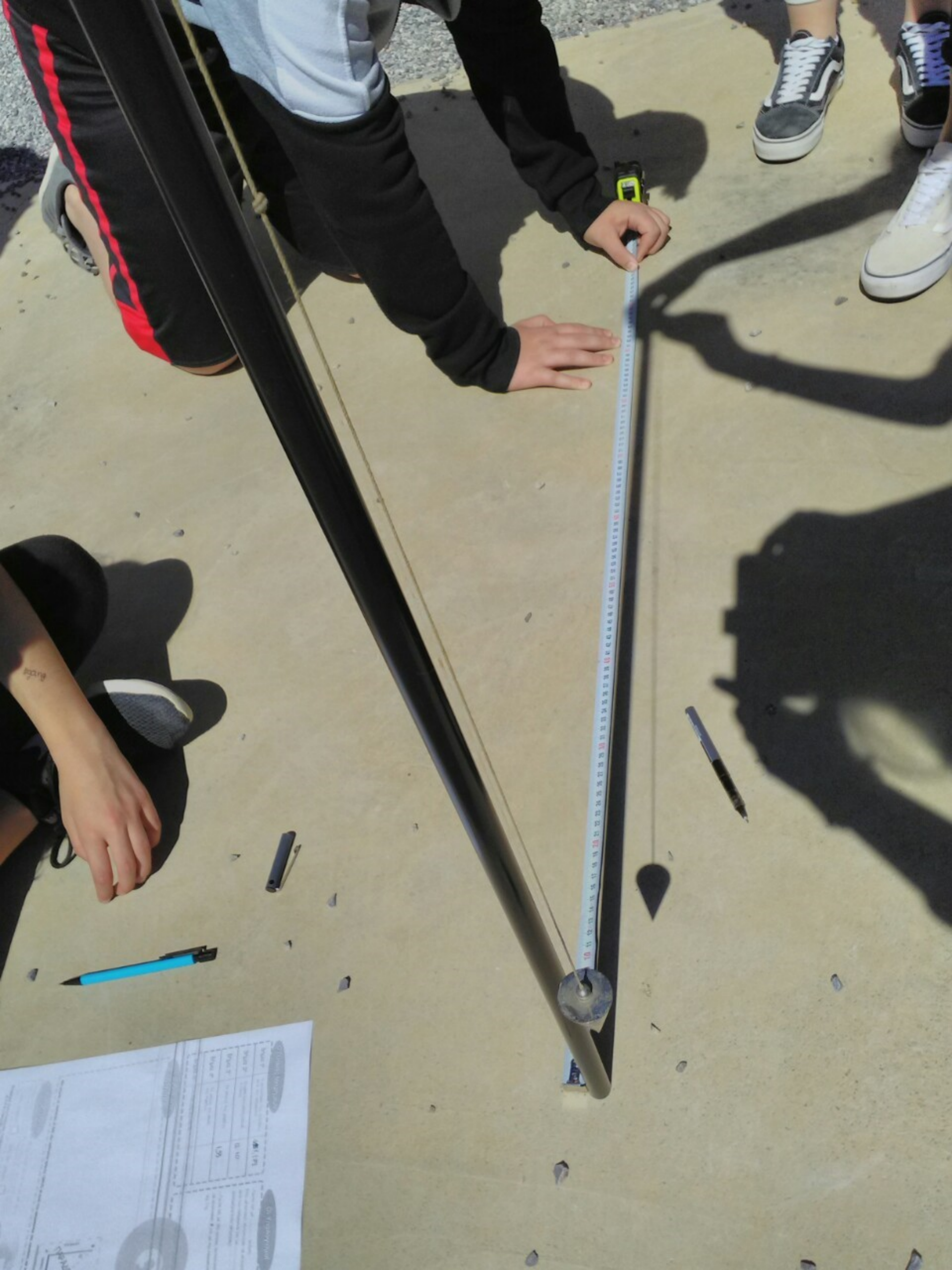


Diagram of a pendulum experiment setup. The diagram shows a black rod of length  $L$  pivoted at the bottom. A mass  $m$  is attached to the top of the rod. The rod is displaced from the vertical by an angle  $\theta$ . The vertical distance from the pivot to the mass is  $L \cos \theta$ . The horizontal distance from the pivot to the mass is  $L \sin \theta$ . The vertical distance from the mass to the pivot is  $L(1 - \cos \theta)$ .

Quantity	Symbol	Value
Length of rod	$L$	1.00 m
Mass of bob	$m$	0.50 kg
Initial angle	$\theta_0$	30°
Final angle	$\theta_f$	0°
Initial height	$h_i$	0.15 m
Final height	$h_f$	0 m
Initial potential energy	$PE_i$	0.735 J
Final potential energy	$PE_f$	0 J
Initial kinetic energy	$KE_i$	0 J
Final kinetic energy	$KE_f$	0.735 J

