

Speed as a Function of Height of Release

Use Conservation of Energy to find an expression relating the speed v_b of the ball at the bottom of the ramp (assumed frictionless), just as it is about to enter the loop, and the height h from which it is released from rest:

a.) $v_b = \sqrt{gh}$ b.) $v_b = \sqrt{2gh}$

c.) $v_b = mgh$ d.) $v_b = gh$

e.) $v_b = 2gh$

