Stepping Up to KE and PE

Activity 1

NOTE: Numerical values of the PE of the top step are selected at random for a list of possible values. The g value is selected by the student when starting an activity.

Consider the 3-step staircase. All steps provide an equal elevation gain. The potential energy (PE) on the top step is 45.0 J. Determine the PE and KE values of the ball at the indicated positions.



Activity 2

NOTE: Numerical values of step-height and the PE of the top step are selected at random for a list of possible values. The g value is selected by the student when starting an activity.

Consider the 4-step staircase. All steps provide an equal elevation gain. The potential energy (PE) on the top step is 44.0 J. Determine the PE and KE values of the ball at the indicated positions.



Activity 3

NOTE: Numerical values of mass and step-height are selected at random for a list of possible values. The g value is selected by the student when starting an activity.

Consider the 5-step staircase. All steps provide an equal elevation gain. The potential energy (PE) on the 4th step is 36.0 J. Determine the PE and KE values of the ball at the indicated positions.

