BALL Striking the Wall

Problem Statement

A ball is thrown against a frictionless, vertical wall. Immediately before the ball strikes the wall, its velocity has a magnitude 50 m/s and forms an angle of 30o with the horizontal. Knowing that the coefficient of restitution is 0.90, determine the magnitude and direction of the velocity of the ball as it rebounds the wall.

Input

Initial Velocity of the Ball ------ m/s
Strking Angle of the Ball ------ degrees

Restitution ranging from 0.0 1 to 1.0

Control Buttons

"RUN" button starts the animation.
"STOP" button stops the animation.
"RESET" button resets the animation.

Procedure

Set initial velocity and striking angle of the ball. Press reset button and then start button to start the animation.

Concepts used

Basic definations of velocity.
Horizontal and Verical components of velocity.
Momentum Equation

What to see

What decides the angle of the Ball with Wall after strike.
How does the value of Restitution affect motion of Ball.
What is the effevt of initial velocity on the motion of the Ball.