<u>Sliding Blocks</u>

<u>Problem Statement</u>

The two blocks shown are originally ar rest. The masses of the blocks is given. The static and kinetic friction between the inclined surface and the blocks is given. A) Determine the velocity of the blocks after 5 m. B) Find tension in the string. C) Acceleration of the blocks.

Input
Mass of Block A ---- Kg.
Mass of Block B ---- Kg.
Angle of Block A ------ Degrees
Angle of Block B ------ Degrees
Kinetic friction of Block A and the surface

Kinetic friction of Block A and the surface

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

Procedure
Set all the input values. Press reset button
and then start button to start the animation.

Concepts used
Principle of Work and Energy

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.
1.   how does the   velocity   change with time?
     "   "   "   acceleration   "   "   "   ?
     "   "   "   distance   "   "   "   ?
                    why?
2.   what determines which way the blocks will move?
3.   can the blocks remain stationary?   why?
4.   suppose block, b, wants to move down the
           plane, but is kept from doing so by restraining
           block, a.   will the tension in the connecting
           cable be greater or less after block, a, is
           released?   why?