

Cars on intersection

Problem Statement

Two cars A and B are moving with constant velocity 30 km/hr and 45 km/hr respectively, Find the relative velocity of car A with respect to car B, the relative displacement of car A with respect to car B after 30 seconds.

Input

Velocity of the cars ----- m/s

Acceleration of the car moving in horizontal direction----- m/s^2

Control Buttons

"RUN" button starts the animation.

"STOP" button stops the animation.

"RESET" button resets the animation.

Procedure

Set the initial velocity of the cars and acceleration of the car moving in horizontal direction. Press reset button and then start button to start the animation.

Concepts used

Basic definitions of velocity and acceleration.
vector algebra.

What to see

Relative displacement and velocity of the cars with respect to each other.