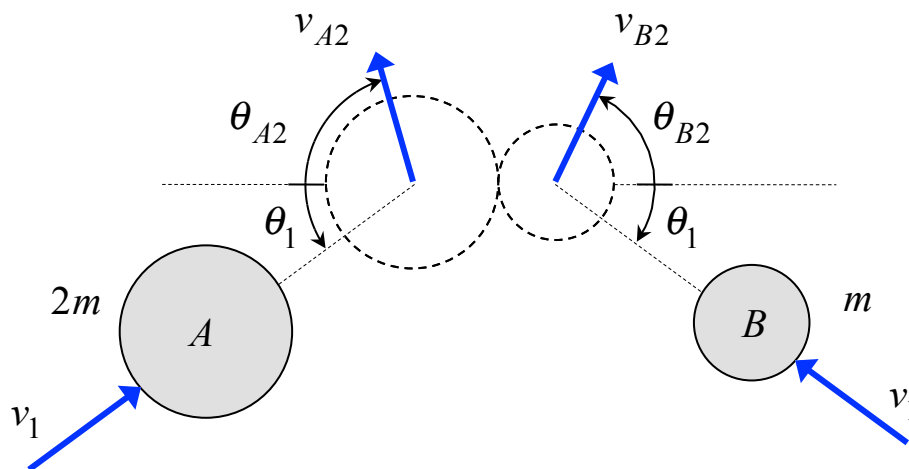


Homework H4.U

Given: Disks A and B are initially traveling with the same speed v_1 on a smooth horizontal surface, with the line of travel of each at an angle of θ_1 , as shown in the figure. After the two disks impact each other, the disks rebound with speeds of v_{A2} and v_{B2} , with lines of travel at angles of θ_{A2} and θ_{B2} . The coefficient of restitution for the impact is e .

Find: Determine numerical values for v_{A2} , v_{B2} , and θ_{B2} .



Use the following parameters in your analysis: $v_1 = 20$ ft/s, $\theta_1 = 36.87^\circ$, and $e = 0.8$.