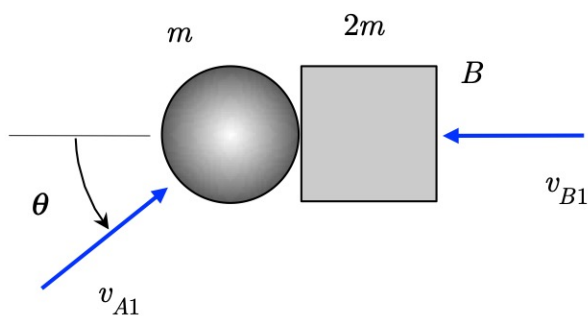**Homework H.4.P**

Given: Particles A and B impact each other with initial velocities shown in the figure. The coefficient of restitution for this impact is e.

Find: For this problem:

(a) Determine the velocities of A and B after the impact. Write your answers as vectors.

(b) Determine the energy loss during the impact as a percentage of the initial energy of the system.

HORIZONTAL PLANE

Use the following parameters in your analysis: $m = 2$ kg, $v_{A1} = 10$ m/s, $v_{B1} = 10$ m/s, $\theta = 30°$ and $e = 0$.