

Coefficient of Resistution

$$e = \frac{\text{Speed of Speration}}{\text{Speed of Approach}}$$

$$e = \frac{v_2 - u_1}{u_1 - u_2}$$

$$0 \leq e \leq 1$$

Framework to answer these questions:

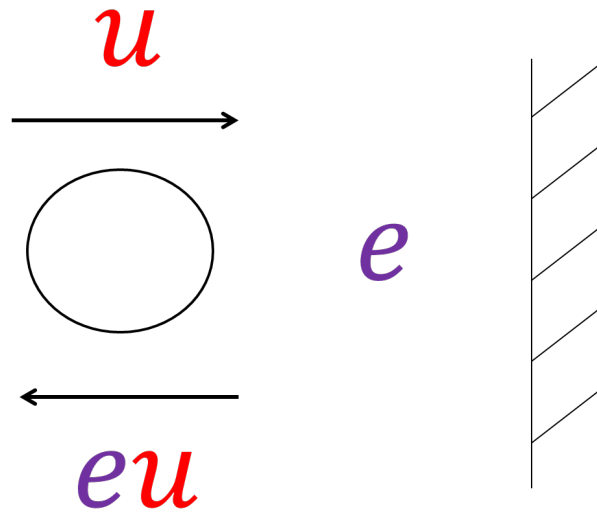
Equation 1 Conservation of Momentum

Equation 2 Coefficient of Resistution

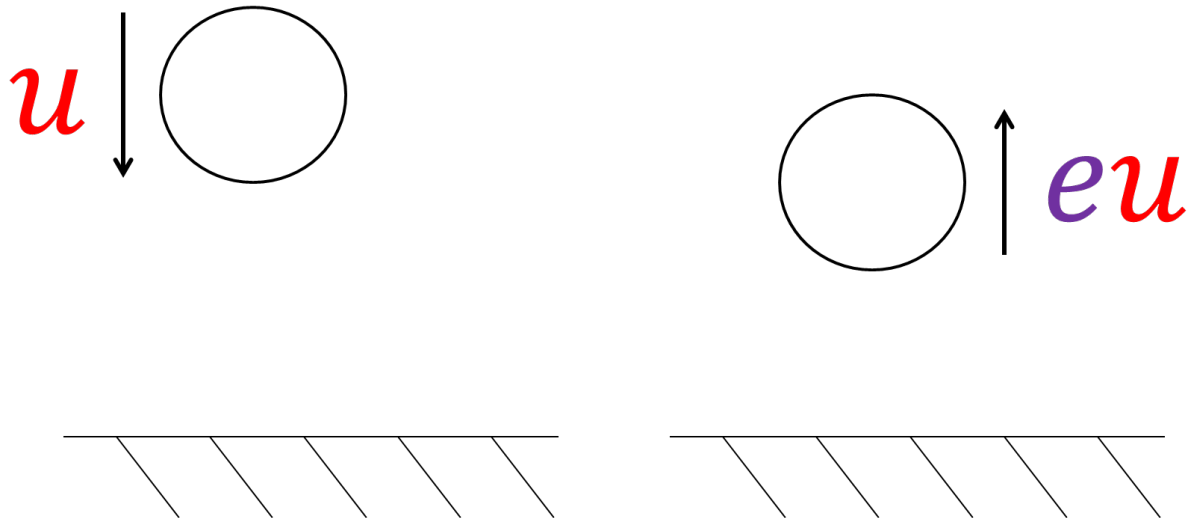
then Solve Simultaneously

Collisions with Planes

Wall



Floor



$$\text{Kinetic Energy} = \frac{1}{2}mv^2$$

$$\text{Loss KE} = \frac{1}{2}mv^2 - \frac{1}{2}mu^2$$