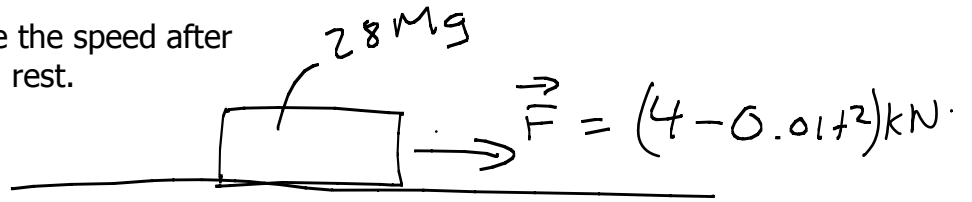


## Kinetics of a Particle: Principle of Linear Impulse and Momentum

**Problem Statement:** Determine the speed after 4 seconds if the object starts from rest.



- 1.) Draw the Free-Body Diagram if needed.
- 2.) Determine the impulses and momentum.
- 3.) Apply the Principle of Linear Impulse and Momentum.
- 4.) Apply kinematics if needed and solve for the unknowns.