Test 4 covers Lectures 12-15:

- Object and system momentum in 2D
- Impulse and change of momentum
- Conservation of Momentum
- Explosions
- Properties of inelastic and elastic collisions
- Two-stage systems that link conservation of energy with conservation of momentum

- Relating linear and rotational motion
- Moment of Inertia and how it impacts an object's rotation
- Rotational kinematics for spinning objects and for rolling objects
- Total kinetic energy as a combination of translational and rotational kinetic energy
- Applying conservation of mechanical energy with and without rotations

Expect to encounter the following scenarios on Test 4:

