

1	0.75 kg*m/s
2	B
3	<p>Yes</p> <p>This collision occurs along the horizontal plane. The vertical forces (FN and FG) are in the wrong dimension, and the horizontal forces from one block on the other are internal to our system. Since there are no external forces in the colliding plane, the law can be used.</p>
4	<p>No</p> <p>Do not use the law of conservation of momentum when there is no collision. This object is changing its velocity as it speeds up down the ramp, and therefore, its momentum is increasing.</p>
5	<p>No</p> <p>The wall is in contact with two other walls, a ceiling, and a floor. These are all external forces that prevent momentum from being conserved. Initially, the bullet has momentum. Later, when everything comes to rest, nothing does. This is a clear change of momentum.</p>
6	<p>Yes</p> <p>Only the force of gravity acts on the can-bullet system after the collision, which is a force that is internal to the system (by Earth) and in the wrong dimension compared to the colliding plane.</p>
7	<p>Yes</p> <p>Being on ice, friction is negligible, which means that no external forces are present to affect the collision.</p>