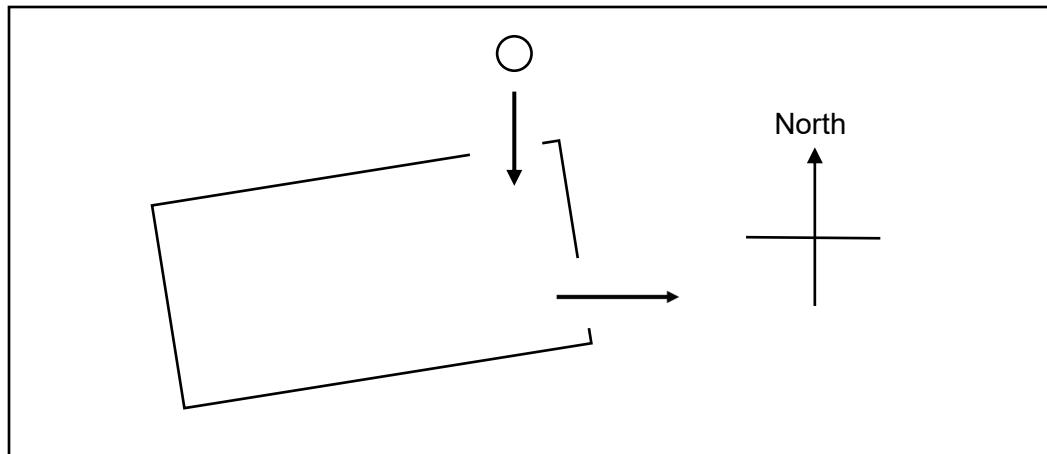


- 5 The figure below shows the top view of an empty box resting on a smooth horizontal surface. A ball moving in a southward direction, enters the box and makes multiple elastic collisions with the box before exiting in an eastward direction.



top view

Which of the following statements best describes the motion of the box after the ball exits from it?

- A The box moves in a westward direction.
- B The box moves in a southward direction.
- C The velocity of the box has both southward and eastward components.
- D The velocity of the box has both southward and westward components.