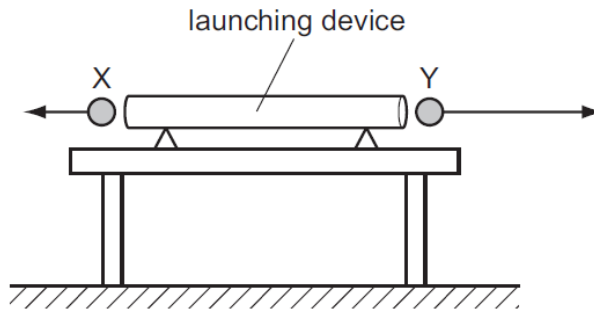


- 4 A double-ended launching device fires two identical steel balls X and Y at exactly the same time. The diagram shows the initial velocities of the balls. They are both launched horizontally, but Y has greater speed.



Which statement explains what an observer would see?

- A X reaches the ground before Y, because X lands nearer to the launcher.
- B Y reaches the ground before X, because Y has greater initial speed.
- C Both X and Y reach the ground simultaneously, because gravitational acceleration is the same for both.
- D Both X and Y reach the ground simultaneously, because air resistance will cause both to have the same final speed.