

Question 1

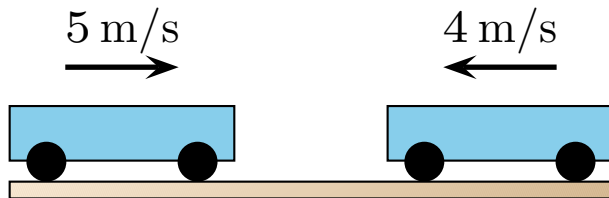
Two pool balls, each with mass 0.15 kg , travel in straight lines directly toward each other with the same speeds, 10 m/s .

Which of the following is the total momentum of the system of the two balls?

1. 0.0 kgm/s
2. 1.5 kgm/s
3. -1.5 kgm/s
4. 3.0 kgm/s
5. -3.0 kgm/s

Question 2

A 4 kg cart moves to the right with speed 5 m/s. A 6 kg cart moves to the left with speed 4 m/s. The two carts stick together.



Which of the following best describes the carts after the collision?

1. They will be at rest.
2. Both carts will *definitely* move right.
3. Both carts will *definitely* move left.
4. Whether the carts move left or right depends on the severity of the collision.