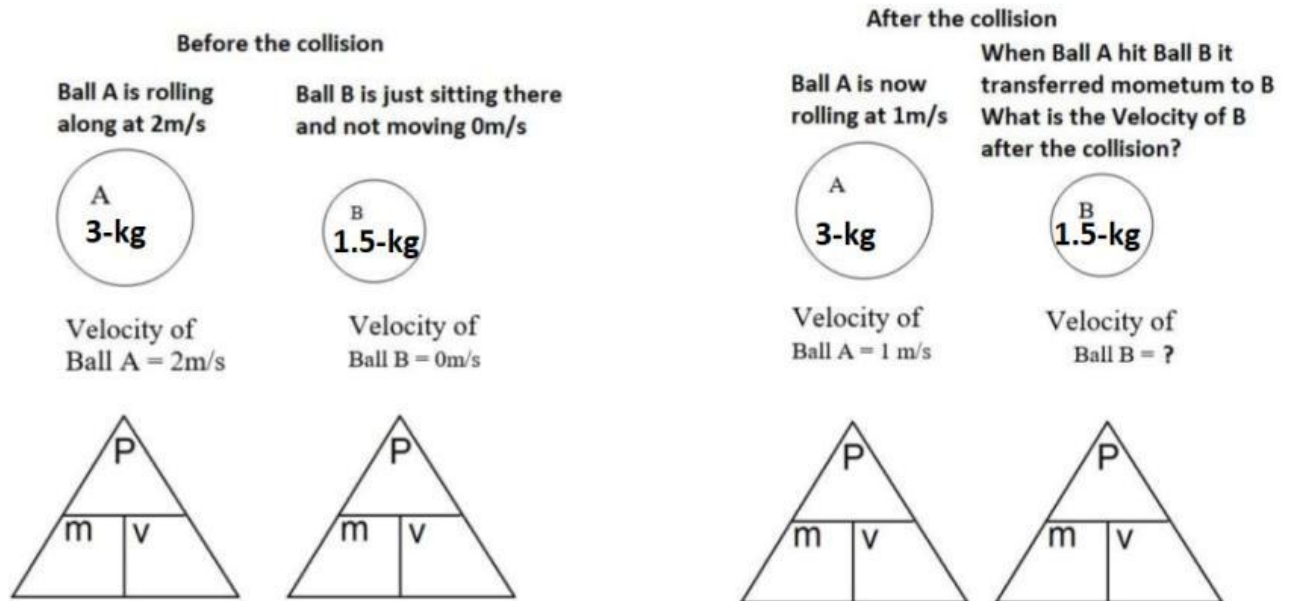


The Law of Conservation of Momentum states that momentum can be transferred from one object to another but the total does not change, momentum is not lost or gained, created or destroyed.

The formula for momentum is **$P = \text{mass} \times \text{velocity}$** or **$P = m \times v$** , this means we can put it in the triangle, with **$m \times v$** on the bottom and **P** (momentum on top)

In the problem below, one ball is sitting still, it is struck by another ball, after the collision momentum has been transferred from the ball that was rolling along to the one that was struck. You are asked to figure out the velocity of the ball that was struck after the collision.



After the collision the velocity of Ball B is _____ and the correct unit is _____ (m, m/s, s, m/s•kg)