

What is momentum?

Momentum is a vector quantity that represents the motion of an object. It is defined as the product of an object's mass and velocity.

How is momentum calculated?

The momentum of an object is calculated by multiplying its mass by its velocity.

What are the units of momentum?

The units of momentum are $\text{kg}\cdot\text{m/s}$.

What is the relationship between momentum and force?

Force is the rate of change of momentum. This means that force is required to change the momentum of an object.

What are the laws of momentum?

There are three laws of momentum:

1. The law of conservation of momentum: The total momentum of a system is conserved. This means that the momentum of an object cannot be created or destroyed, only changed.
2. The law of inertia: An object will continue to move in a straight line at a constant velocity unless acted upon by an external force.
3. The law of action and reaction: For every action, there is an equal and opposite reaction. This means that when two objects interact, they exert equal and opposite forces on each other.