

Home Assignment

Q7

An object experiences a net 0 external unbalanced forces. Is it possible for the object to be travelling with a non-zero velocity? If yes, state the conditions that ~~must~~ must be placed on the magnitude and ~~the~~ direction of the velocity. If no, please provide a reason.

It is possible for the object to be travelling with non-zero v. Because the object may be at rest.

When an object once comes into motion then the object will continue to remain in motion. The magnitude of v is constant & the direction is same as in the beginning.

Q7

Differentiate between balanced & unbalanced.

Balanced	Unbalanced
→ If the resultant force applied on a body is 0 then it is called <u>balanced force</u> .	→ If the f applied on body is $\neq 0$ then it is called as <u>Unbalanced force</u> .
→ The forces applied in opposite direction is same and at rest.	→ The forces applied in opposite direction is must be greater than another force.

③ Define Inertia

It is the tendency of every object to resist any change in its speed or state of rest or of uniform motion.

④ Write whose inertia is more:

(a) Bicycle and a train

Train

(b) 25 coin and a 1 coin

25 coin.