

Hw  
12/7/18

## ODM CONNECT APP HOMEWORK

Q1. An object experiences a net zero external unbalanced force. Is it possible for the object to be travelling with a non-zero velocity? If yes, state the conditions that must be placed on the magnitude and direction of the velocity. If no, provide a reason.

Ans) A net zero external unbalanced force means that object has balanced force. In balanced force,

- stationary object remains stationary.
- Moving object remains moving.

Therefore,

Yes, it is possible for the object to travel with a non-zero velocity.

It is possible only if the object's velocity remains constant i.e.,

- Magnitude of velocity doesn't change
- Direction of object doesn't change.

Q2. Differentiate between balanced & unbalanced force.

Ans) Balanced force

- Force acting on a body from the opposite direction are same.
- Net force is zero.
- It does not change the state of rest / of motion of an object.

Unbalanced force

- Force acting on a body from 2 opposite directions are not same.
- Net force is not zero.
- It do change the state of rest / motion of an object.