*General instructions for Students: Whatever be the notes provided, everything must be copied in the Physics copy and then do the HOMEWORK in the same copy.*

***Rest*** *– An object is said to be rest if it does not change its position with time.*

*For example – A person sitting on the chair, A book lying on the table, etc.*

***Motion*** *– An object is said to be in motion if it changes its position with time.*

*For example – Moving train, Birds fly in the sky, etc.*

***Force*** *– A push or a pull on an object is called force.*

*The SI unit of force is newton (N).*

*For example – Drawing a bucket of water from a well, oppening a door, etc.*

***Forces are due to interaction*** *– The interaction between two bodies is called force.*

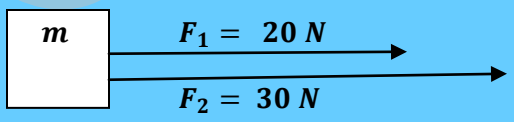
*For example – Sumo wrestling, pushing a bus, etc.*

***More About Forces*** :

*(a) Pushing an object in the same direction –*

*Forces applied on an object in the same direction adds up.*

*For example – Calculate the net value of force .*




*Here,*

$F_1 = 20\ N$ *and* $F_2 = 30\ N$

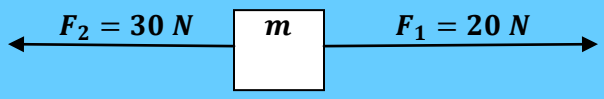
*Net force* $(F) = F_1 + F_2 = 20 + 30 = 50\ N$

*Net force acts along right direction.*

**(b) *Pushing an object in the opposite direction –***

***Forces applied on an object in the opposite direction, the net force is difference between the two applied forces.***

***For example – Calculate the net value of force with which body is moving.***




***Here,***

$F_2 = 30\ N$ *and* $F_1 = 20\ N$

*Net force* $(F) = F_2 - F_1 = 30 - 20 = 10\ N.$

*Net force acts along the direction of* $F_2$. *(Left)*

***Assignment***

1. *Give examples of push or pull.*
2. *What is force ? write the SI unit of force.*
3. *Why force is called vector quantity ?*
4. *Calculate the net value of force with which body is moving.*