# Physics (New Book) - 9th Class Physics English Medium Chapter 3 Preparation

Q1. Write two method of reducing friction.

**Ans 1:** Making the sliding surfaces smooth By converting sliding friction into rolling friction.

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Q2. Describe two situations in which force of friction is needed

**Ans 1:** We cannot rite without friction between paper and the pencil
We cannot walk without friction Friction enables us to walk on the ground.

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Q3. Why the spanner of washing machine is moved fastly

**Ans 1:** The dryer of the washing machine works on the principle of centrifuge. The dryer consists of a long cylinder with hundreds of small holes on its walls wet clothes are piled up in this cylinder when the cylinder is rotated rapidly about its axis water from wet clothes moves outwards to the wall of the cylinder and is drained out through the holes and the clothes become dry quickly

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Q4. What will be the tension in a ropethat is pull from its ends by two opposite forces 100N?

**Ans 1:** The tension in a rope that is pulledfrom its ends by two opposite forces 100N each will be 100 N

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Q5. Define weight and write its unit

**Ans 1:** Weight: Weight of a body is due to the force of gravity acted on it weight of body is eual to the force with which Earth attract it.

**Ans 2:** Symbol: Weight is denoted by W. Weight is a vector quantity

**Ans 3:** Unit The SI unit of weight is newton (N)

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Q6. When a gun is fired, it recoils.

**Ans 1:** Total momentum o the gun and the bullet is zero before the firing. When gun fired, bullet moves in forward direction and gun recoils so theat total momentum after firing also becomes zero according to law of conservation of momentum.

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Q7. Write two difference of Mass and Weight.

**Ans 1:** Mass: Mass of a body is the quantity of matter that it possesses.
It is a scalar quantity
It does not change by using the place

Mass is denoted by m.
Mass can be find by
formula m=f/m
Unit of mass is kilogram (kg)

**Ans 2:** Weight Weigh of a body is due to the force of gravity acted on it Weight of a body is equal to the force with which Earth attracts it.
It is a vector quantity
It depends upon value of g So it changes place to place with respect to height
Weight is denoted by W
Weight can be find by formula
w=mg
Unit of weight is newton (nm)

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Q8. Define unit of force.

**Ans 1:** Unit of force is Newton. 1 N is a force that produced an acceleration of 1 ms-2 in a body of mass of 1 kg.

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Q9. Difference between Mass and Weight?

**Ans 1:** Mass
1- Mass of a body is the quantity of matter possessed by the body
2- It is a scalar quantity

**Ans 2:** Weight:
1- The weight of the body is equal to the force with which earth attracts it
2- It is a vector quantity.

**Ans 3:**

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Q10. Define Cream separator:

**Ans 1:** Most modern plants use a separator to control the fat contents of various product. A seperator is a high-speed spinner. It acts on the same principle of centrifuge machines.

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