



Name: **Key**

Date:

Objectives:

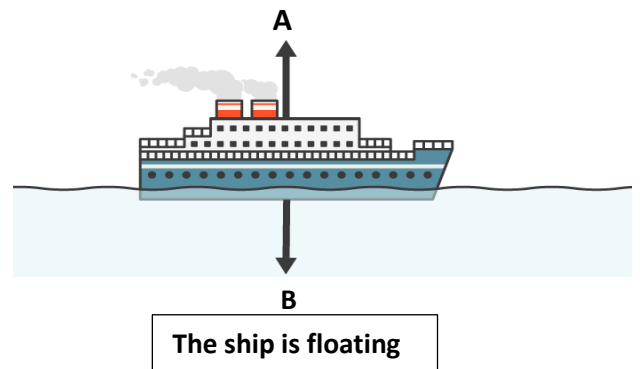
- Identify different forces acting on different situations.
- Differentiate between contact and non-contact forces.
- Calculate mass and weight on different planets.

Question 1:

Identify the forces acting in each situation:

A: **Up thrust**

B: **Weight**

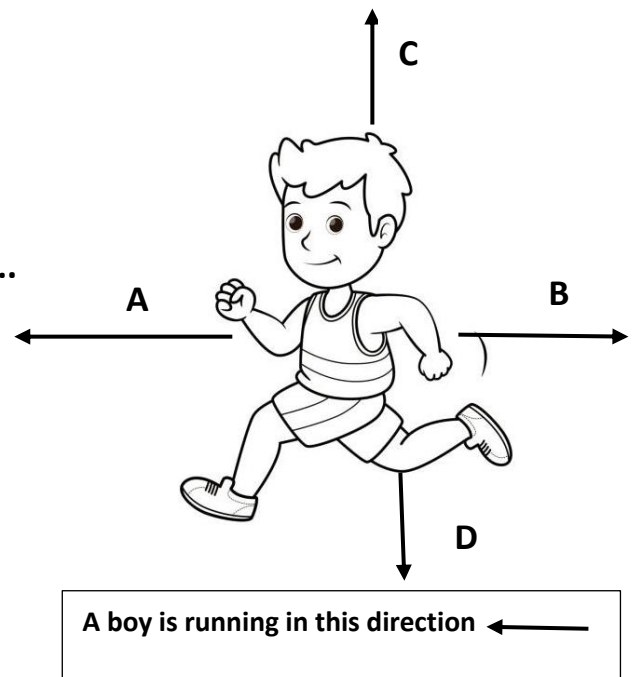


A: **Thrust**

B: **Air resistance** + **Friction**

C: **Normal (reaction)**

D: **Weight**



Question 2:

Answer the following questions about contact and noncontact forces:

- The type of forces that act when objects are not touching: **non-contact**,
Examples: **Magnetic force** **Electrostatic force**
- This type of forces that only act when objects are touching: **contact force**,
Examples: **Tension** **water resistance**

Question 3:

An object has a mass of 40 kg on Earth. Study the following table and answer the question below.

$Weight(N) = Mass \times gravitational\ field\ strength\ (N/kg)$

| The planet | Gravitational field strength |
|------------|------------------------------|
| Saturn | 11 N/Kg |
| Earth | 10 N/kg. |
| Jupiter | 25 N/Kg |

- Calculate the object **weight** on **Saturn**:
40 X 11 = 440 N
- Calculate the object **mass** on **Saturn**:
40 kg
- If the object weight on Earth is 400 N calculate the **gravitational field on Earth**:
400/40 = 10 N/kg
- Calculate the object **weight** on **Jupiter**:
40 X 25 = 1000 N