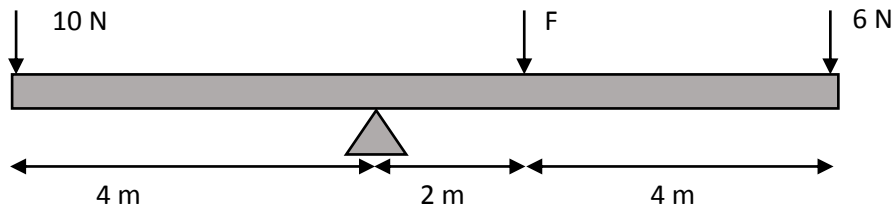


Year 11 Physics 2021 Worksheet 2- Mechanics

Write the answers in your Exercise Book.

1. Three forces are acting on a lever at positions shown below.



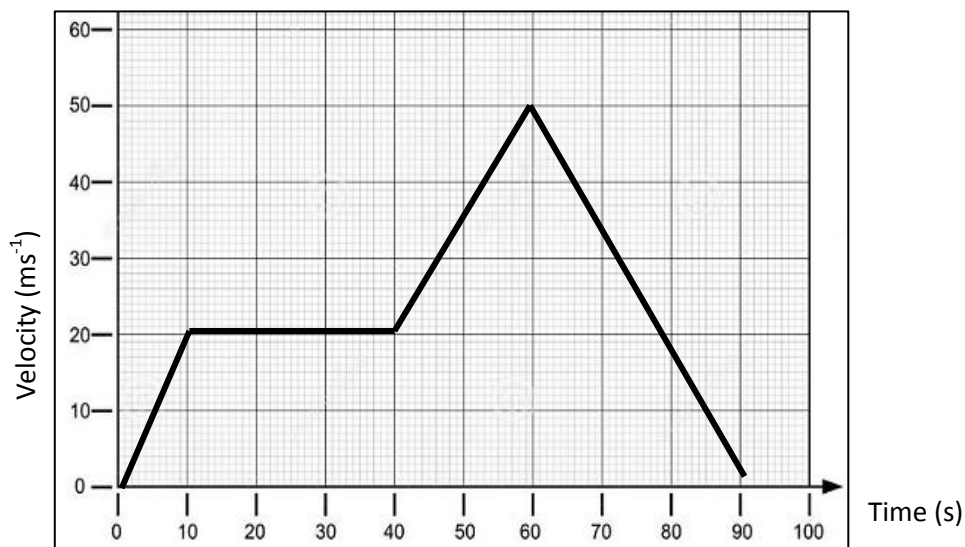
Calculate the force F needed to keep the lever in equilibrium. (2 marks)

2. Distinguish between the terms given below.

(a) Distance and displacement. (2 marks)

(b) Velocity and speed (2 marks)

3. The velocity-time graph of a car is given below.



(Graph paper source: <https://www.dreamstime.com/>)

- (a) Identify the intervals during which the car is **accelerating**. (1 mark)
- (b) Describe the motion of the car in the interval 10-40 s. (1 mark)
- (c) Calculate the **acceleration** of the car in the interval 60-90 s. (1 mark)
- (d) Determine the **total distance** covered during the journey. (2 marks)