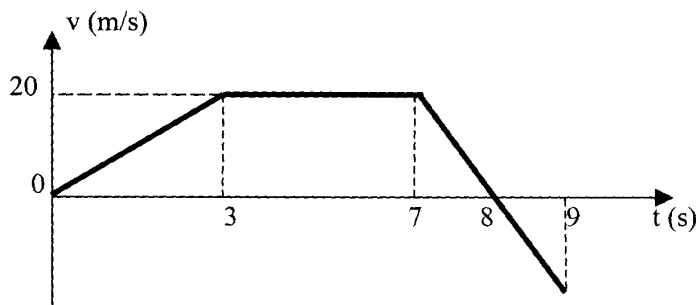


**BA SANGAM COLLEGE**  
**YEAR 11**  
**PHYSICS**  
**WORKSHEET 2**

1. A toy car starts from rest, accelerates uniformly in a straight line and gains a speed of 50m/s in 5s.

- i) Calculate the acceleration of the toy car.
- ii) What distance does it travel in 5s?
- iii) What would be its velocity after 6s of motion?

2. The velocity-time graph shows the motion of a car along a straight road.



- i) How far has the car travelled after 7s?
- ii) Calculate the acceleration of the car in the first 3s.
- iii) Calculate the average speed of the car during first 7s.

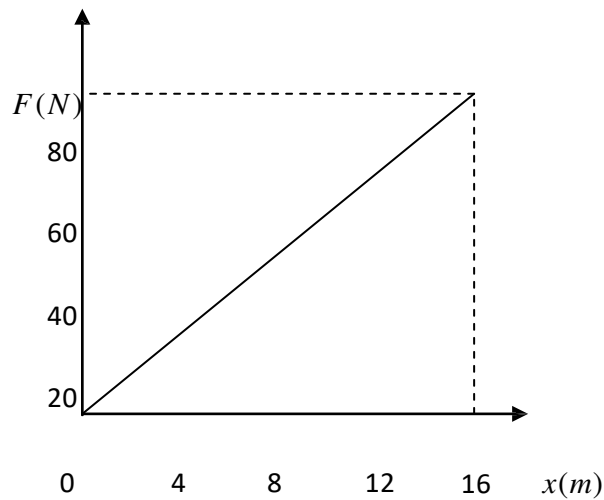
3. State the number of significant figures in the following

- i. 0.050
- ii. 12.0
- iii.  $4.83 \times 10^3$
- iv. 1.969

4. Differentiate the following terms:

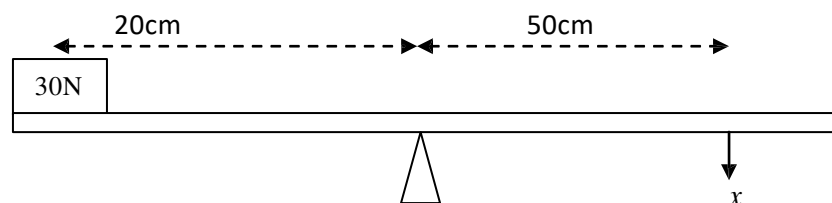
- i) Displacement and distance
- ii) Velocity and speed

5. A group of Year 11 students were trying to discover the relationship between Force and the extension of the spring. They did an experiment and from the results they obtained the following graph.



- i. From the graph, determine the relationship between force and extension of the spring.
- ii. Define Hooke's Law.
- iii. Calculate the spring constant.
- iv. What is the total energy in the spring when it is stretched by 12 cm?

6.



- i. State the principle of moments.
- ii. Calculate force

