

### Answer on Question #60051-Physics – Mechanics | Relativity

Read the given time versus displacement data carefully and answer the following questions.

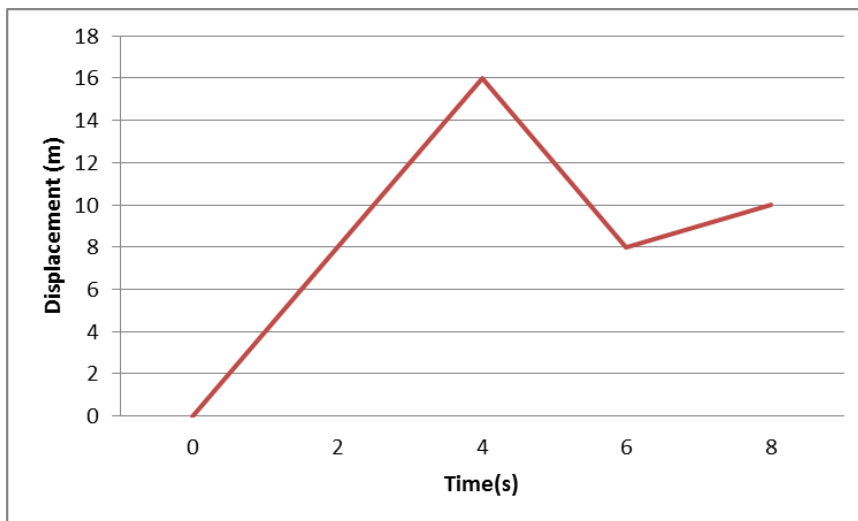
Time(s) 0 2 4 6 8

Displacement (m) 0 8 16 8 10

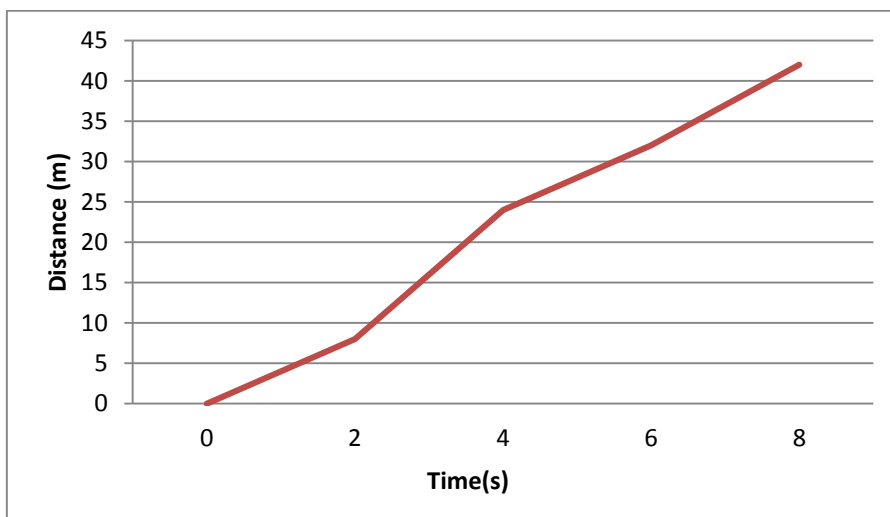
- a) sketch the displacement-time graph for this motion.
- b) Sketch a distance-time graph for the same motion.
- c) for which time intervals the body possess
  - i) Uniform retardation.
  - ii) Constant velocity.
- d) What will be the displacement of the body at time= 3 sec and time= 7 sec.

#### Solution

a)



b)



c) i) None.

ii) (0;4); (4;6); (6;8).

d)

$$d(3) = 12\ m$$

$$d(7) = 9\ m$$