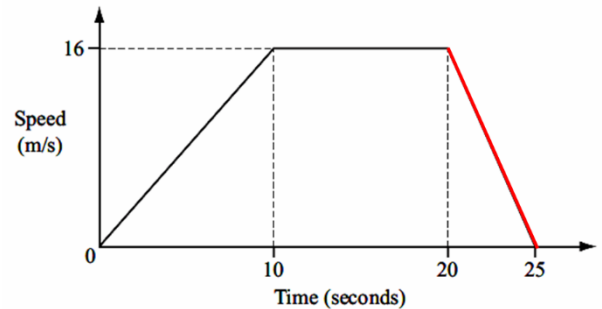


## Class 9<sup>th</sup> Physics Holidays Homework

- 1) A car is moving with a speed of 54km/h. After five seconds its speed is 72km/h. Calculate the acceleration of the car?
- 2) On a track of 60km, a train travels the first 30 km at a uniform speed of 30km/h. How fast the train travel the next 30km so as to average 40km/h for the entire trip?

- 3) Calculate the acceleration of the following case
  - a. In time 0 – 10 Seconds
  - b. In time 20 – 25 Seconds



- 4) The distance between the house and school of a boy is 3.6 km. if he take 6 min to reach his school by car, calculate the speed of the car in m/s and km/h.
- 5) A bullet leaves the barrel of a riffle with a speed of 300m/s. If the length of the barrel is 0.9 m, at what rate is the bullet accelerated while in the barrel?
- 6) A bicycle moving with a velocity of 3m/s speed up the acceleration of  $0.5\text{m/s}^2$ . What will be its velocity be after 5s and how far will it have moved during this time?
- 7) A body is coming down an inclined plane with an acceleration of  $1\text{m/s}^2$ . If its starts from rest, find the time and distance travelled by the body in 5 s.
- 8) A body is moving with a speed of 36km/h is brought to rest in 10s. What will be acceleration and why it is negative?
- 9) A body goes A to B with a speed of 40m/s and return with a speed of 60m/s. Find the average speed of the body?
- 10) A train 50m long passes a bridge at a speed of 30km/h. if it takes 36s to cross the bridge, then find the length of the bridge?

**Happy Holidays**