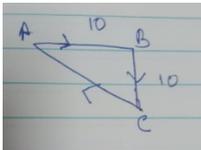
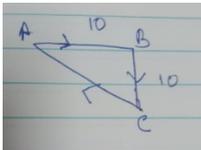
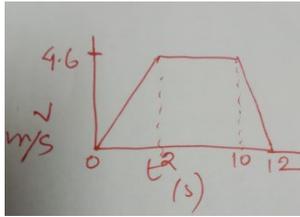


Motion numerical practice sheet

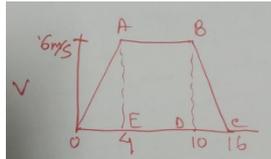
1. A car starts from rest and attains a velocity of 10 m/s in 40 seconds. Then the driver applies break and slows down the car to 5 m/s in 10 seconds. Find acceleration for both of the cases.
2. A car starts and the acceleration is 5 m/s^2 for 8 seconds, if then acceleration is constant, what distance will the car cover in 12 second, since it starts from rest?
3. An electron is moving with a speed of 5000 m/s enters into a uniform electric field and acquires a uniform acceleration of 10000 m/s^2 .
 - a) Calculate the time when it's velocity is double than the initial velocity?
 - b) How much distance the electron covers in this time?
4. Two stones are thrown vertically upwards with their initial velocity u_1 and u_2 . Prove that the ratio of height is u_1/u_2
5. An athlete completes one round in a circular path 200m diameter in 40 seconds. The distance and displacement after 3 min 20 seconds.
6. An object is dropped from a cliff of 20 m height with an acceleration of 10 m/s^2 . Find the final velocity after 2 second it dropped.
7. A moving bus decreases its speed from 80 m/s^2 to 50 m/s^2 . Find the retardation.
8. Convert 25km/hr to m/s
9. If a bus going from A to B with 24 km/hr and B to A 48 km/hr, then calculate the average speed.



10.  find distance and displacement
11. A body thrown vertically upwards reaches a maximum height h. it then returns to ground. Calculate distance and displacement.
12. A body is moving with a velocity of 15m/s. if the motion is uniform ,then what will be the velocity after 10 second?
13. A train 100m long moving on a track passes a pole in 5 second.
 - a) Find the speed of the train
 - b) The time taken by the train to cross a bridge of 500m.



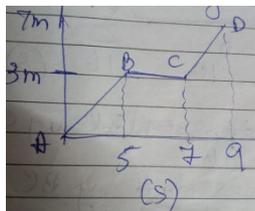
14. a) acceleration for first 2 sec
 b) acceleration 2nd and 10th second
 c) acceleration for last 2 second



15. a) motion of OA
 b) motion of AB
 c) motion of BC
 d) acceleration of the body
 e) total distance covered

16. a body travels a distance of 15m from a to B and then moves a distance of 20m at right angles to AB. Calculate the total distance travelled and the displacement.

17. what will be the distance and displacement after 4 rounds after moving a circular tract of 200m



18. find speed of
 a) AB
 b) BC
 c) CD

19. a moving car is brought to rest within 20 seconds by applying force. Find the initial velocity if retardation is 2 m/s^2 .

20. a car acquires a velocity of 72 km/hr in 10 seconds stating from rest. Find a) acceleration
 b) average velocity c) distance

21. a cyclist goes once a round a circular track of diameter 105m in 5 minutes. Calculate his speed.

22. a man travels distance 1.5km towards east, then 2 km towards south and finally 4.5km towards east. Find distance and displacement.

23. one object is moving from B to C and then c to A and right angle. $BC=3\text{km}$ $CA=4\text{km}$. find distance and displacement

24. a body is moving 3 km to the east, 4 km to North and then 9 km to the east. Find distance and displacement.

25. an ant is moving from P to Q 8cm and then Q to R perpendicular at 6cm. find distance and displacement.