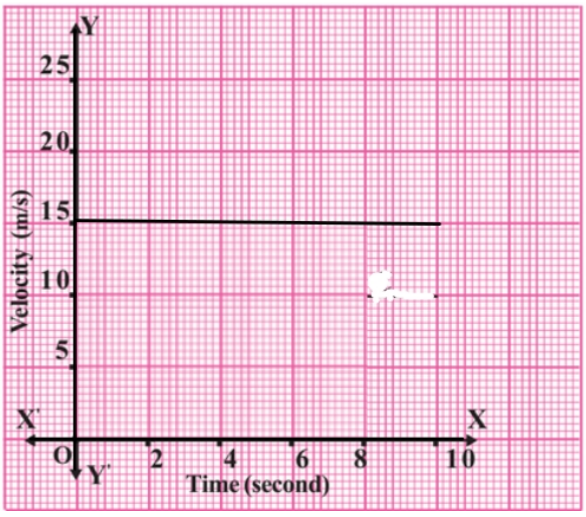
I velocity time graph

1.



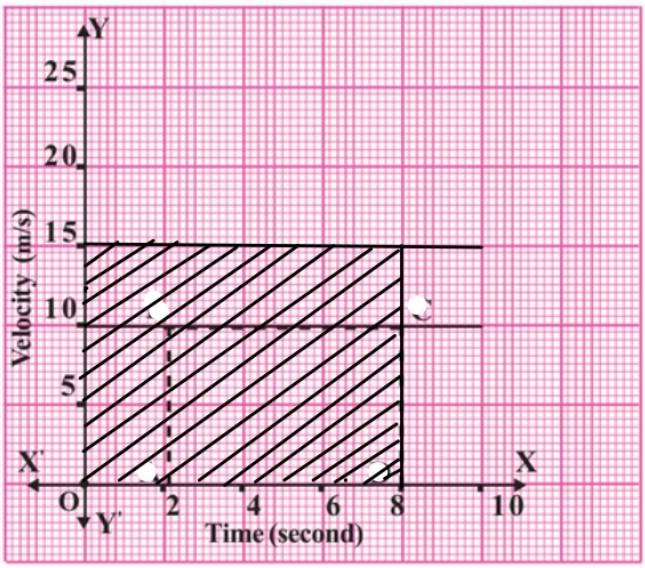
2. Quadrilateral

3. Area = length X width

4 The sides of the quadrilateral thus obtained indicate the velocity of the object and the fixed interval time. Displacement is the product of multiplication between these.

5. Displacement = velocity x time

= 15 x 8 = 120m



II First equation of motion

1.PQRS, trapezium

2. PS

3. QR

4.AQ

5. SR

6. Velocity change of the object during the time intervel from t1 to t2

AQ = v - u

7. Acceleration = velocity difference / time

= AQ / SR = (v - u) /t

8. v = u + at

III Second equation of motion

1. s= 1/2 SR (PS + QR)

2. PS = u

QR = v

SR = t

displacement s = 1/2 t (u + v)

3. s = 1/2 t (u + u + at)

4. s = 1/2 t (2u + at)

= 1/2 t X 2u + 1/2 t X at

= ut + 1/2 at^2

IV Third motion equation

1. s = ½ (v-u) / a (v + u)

= ½ (v-u) (v + u) / a

2. s = (v^2-u^2) / 2a

3. Motion with uniform acceleration