SAPUMAL SAPUMAL
SASANKA. SASANKA.

CAMBRIDG International Examinatic

PHYSICS

SHIKSHA-PANADURA
SHIKSHA-MOLLIGODA
CONTACT NO: 077 075 0566

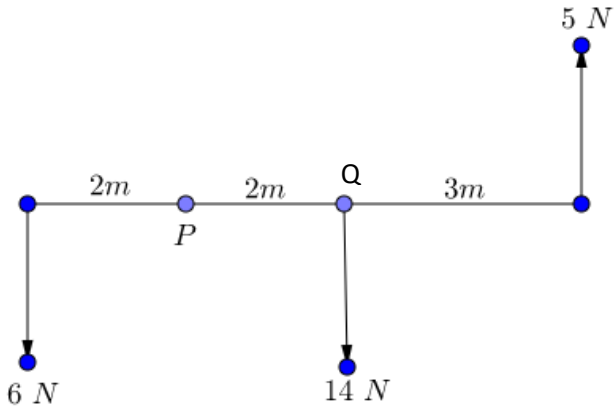
INTERNATIONAL GCSE

1. A block of mass(3.5kg) is at a stationary point O on a horizontal rough surface. 10N is applied on it horizontally to reach a velocity of $0.5m/s$ after 5s. work out for the uniform frictional force.

a) How long the block has travelled on the horizontal surface after 2 minutes.

SSS SHIKSHA

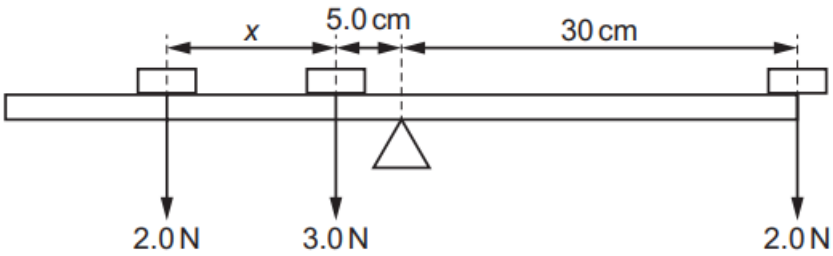
2. Find the moment of the forces about point Q



3. Two spheres, A and B, are moving in a straight line on a smooth, horizontal surface. Sphere A has a mass of 3 kg and is moving with a velocity of 6 m/s towards sphere B. Sphere B has a mass of 2 kg and is initially at rest. After the collision, sphere A moves with a velocity of 2 m/s.
Find the velocity of B after the collision.

SSS SHIKSHA

4. Uniform rod is pivoted at its center and three weights are attached.



Given that the moment about the center is 5Nm clockwise. Work out for the distance x

5. If the radius and height of the cylinder are both halved, what will be the new density of the cylinder with respect to the initial density

SSS SHIKSHA

6. A car starts from rest and accelerates uniformly at a rate of 2 m/s^2 for 10 seconds.
   a) Find the velocity of the car after 10 seconds.

……
……
……
……
……
……
……
……
……
……
……
……

   b) Given that the car move with the velocity it acquired after 10s for 5 for seconds. Plot the velocity time diagram for the motion of the car.

……
……
……
……
……
……
……
……
……
……
……
……
……
……
……
……
……
……
……
……
……
……
……
……

SSS SHIKSHA