



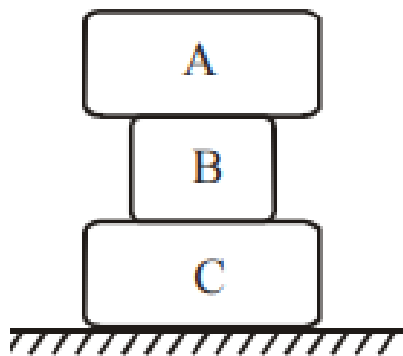
Video Solution on Website:-

<https://physicsaholics.com/home/courseDetails/42>

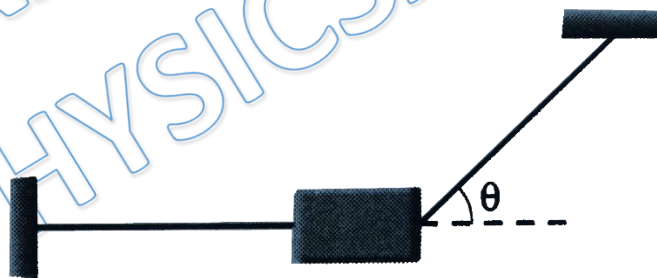
Video Solution on YouTube:-

<https://youtu.be/iM2w5YlicrI>

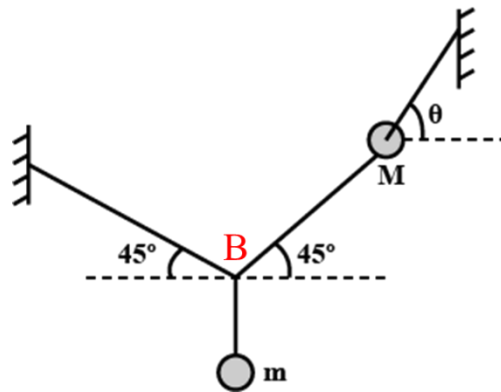
- Q 1. Three blocks A, B and C of masses m_1 , m_2 and m_3 are placed one over the other as shown in figure. Draw free body diagram of all the three blocks:



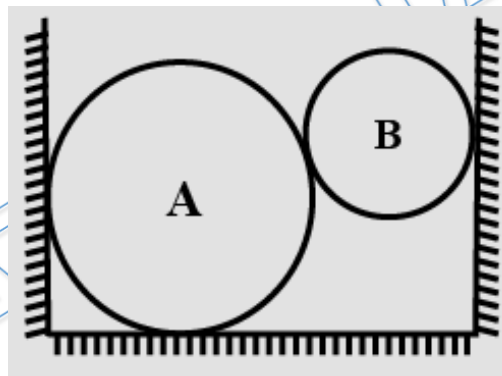
- Q 2. A block of mass m is attached with two strings as shown in figure. Draw the free body diagram of the block:



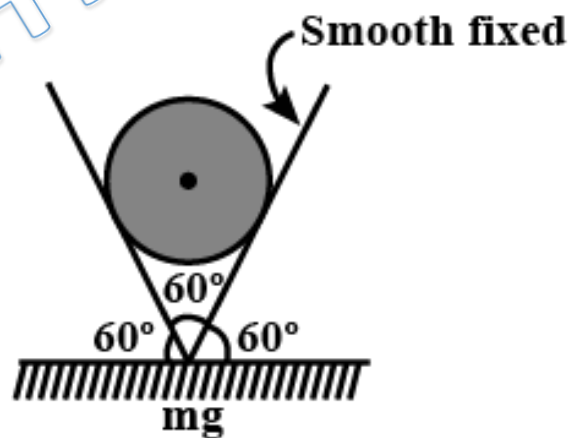
- Q 3. Two masses m and M are attached with strings as shown. Draw the free body diagram of point B and mass M :



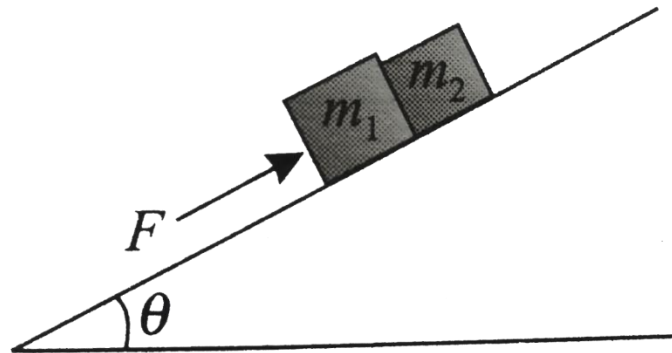
- Q 4. Two spheres A and B of masses m_1 and m_2 are placed between two vertical walls as shown in figure. Friction is absent everywhere. Draw the free body diagram of both the spheres:



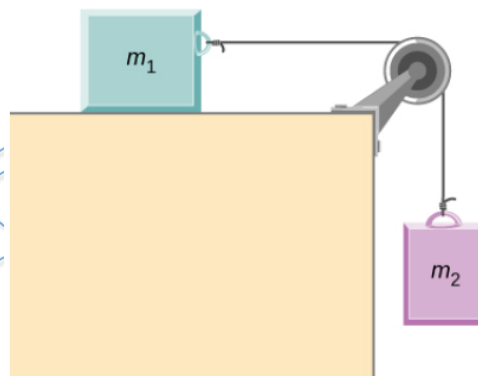
- Q 5. A cylinder of weight W is resting on a V-groove as shown in figure. Draw its free body diagram:



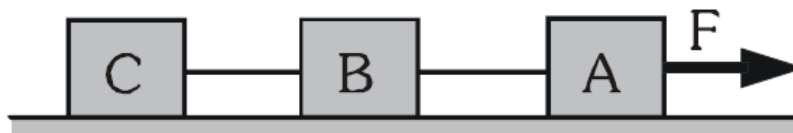
- Q 6. Two blocks are placed at rest on a smooth fixed inclined plane. A force F acts on block of mass m_1 and is parallel to the inclined plane as shown in figure. Both blocks move up the incline. Then Draw free body diagram blocks of mass m_1 and m_2 :



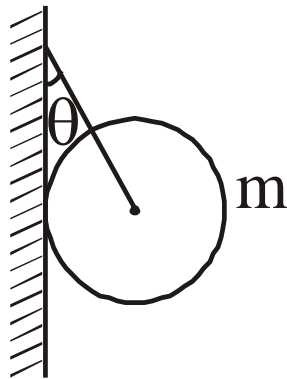
- Q 7. Two blocks of masses m_1 and m_2 are connected with light string. All surfaces are smooth. Then Draw free body diagram blocks of mass m_1 and m_2 and pulley: (pulley is massless)



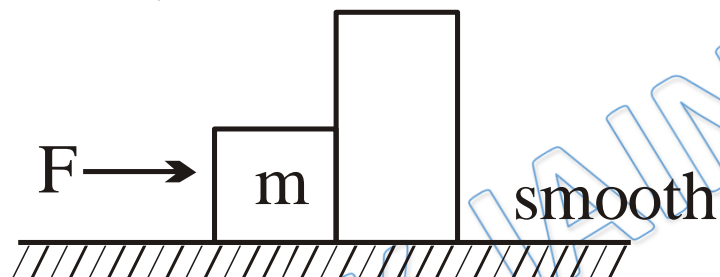
- Q 8. Three blocks A, B and C of masses m_1 , m_2 and m_3 are connected by massless strings and placed on a smooth surface. A force F is applied on block A, then draw free body diagram of all the three blocks:



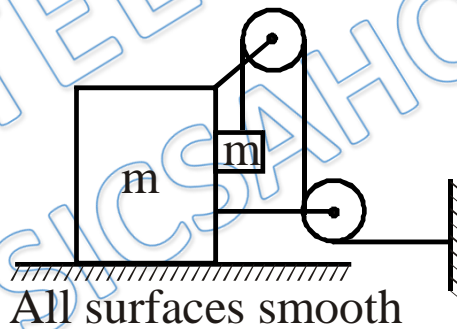
- Q 9. If vertical wall is smooth and string is massless, then draw the FBD of mass m :



Q 10. If the surface is smooth, then draw the FBD of mass m :



Q 11. If pulleys and string are massless, then draw the FBD of small block of mass m :



Q 12. If pulleys and string are massless, then draw the FBD of small block of mass m and M :

