

Physics Homework

Name _____

Date _____ Period _____

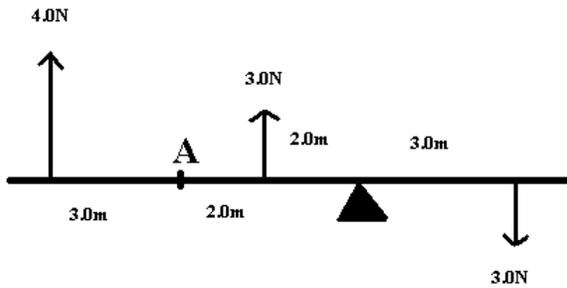


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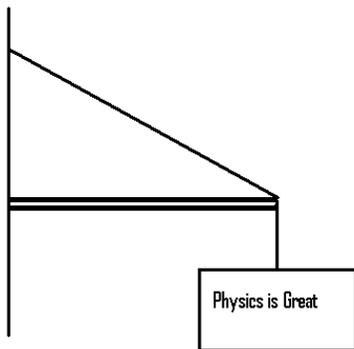


1. Find the gravitational force between two protons that are 1.0cm apart.
 $m_p = 1.67 \times 10^{-27} \text{kg}$

2. Find the force that must be applied at point A to put the following rotational system into rotational equilibrium.



3. Find the force acting on the cable if the mass of the sign is 25kg and the angle between the beam and the cable is 35 degrees.



4. A 5.0N force is applied tangent to the edge of a 50.0cm solid disk that is free to turn. If the wheel has mass of 4.5kg, what is the final rotational velocity of the disk after 1.00 minutes?

5. A 10.0kg solid ball with a radius of 20.0cm is free to rotate around the center. Find the kinetic energy of the ball if it accelerates at 25rad/sec^2 for 2.0min.