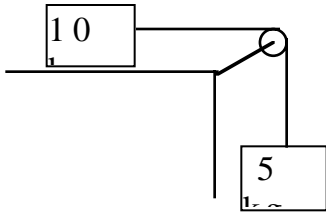
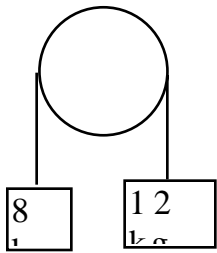


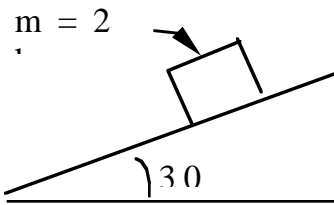
1. A 10 kg block resting on a frictionless horizontal surface is attached to a 5 kg block by a string that hangs over a pulley, as shown. What is the acceleration of the 10 kg block? SHOW METHOD CLEARLY, INCLUDING UNITS.



2. A mass of 8 kg and another mass of 12 kg are suspended over a pulley, as shown. If the system is released, what is the acceleration of the blocks? SHOW METHOD CLEARLY, INCLUDING UNITS.

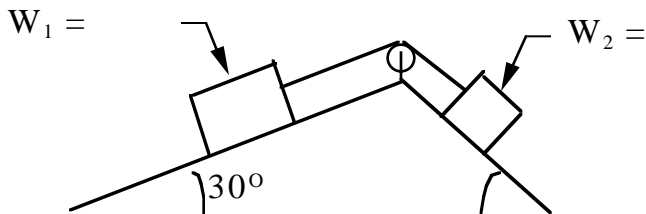


3. A block whose mass is 2 kg slides down a frictionless inclined plane at an angle of 30 degrees, as shown. Find its acceleration. SHOW METHOD CLEARLY, INCLUDING UNITS.



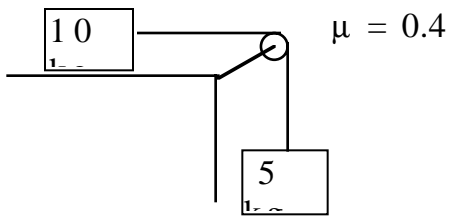
4. Two blocks resting on frictionless inclined planes are connected by a string passing over a pulley, as shown.

a) Will the system move to the left or to the right? SHOW METHOD CLEARLY, INCLUDING UNITS.



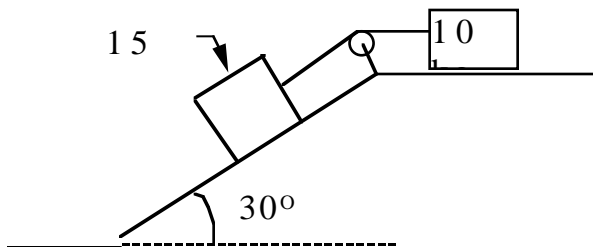
b) What is the acceleration of the system? SHOW METHOD CLEARLY, INCLUDING UNITS.

5. Find the acceleration of the system shown:



6. Find the acceleration of the system shown

(a) assuming no friction



(b) assuming the coefficient of friction is 0.1