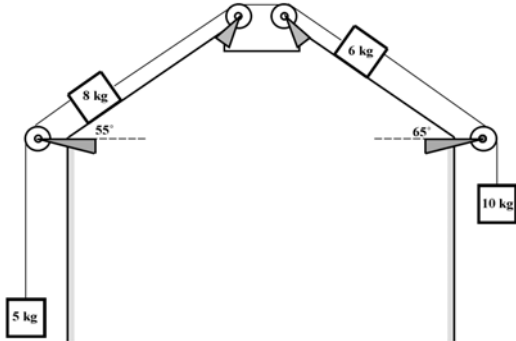


Advanced Force Problems 1

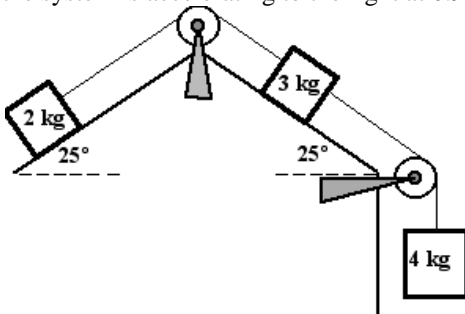
Solve the following problems

1. Based on the picture below, what is the acceleration of this system if the coefficient of friction for the 8kg and the 6k box are both 0.3?



2. Based on problems 1, what would the coefficient of friction need to be to make the system not move at all?

3. In the picture below, if the coefficient of friction for the 3kg box is 0.15, what is the coefficient of friction of the 2kg box if the system is accelerating to the right at 0.95 m/s^2



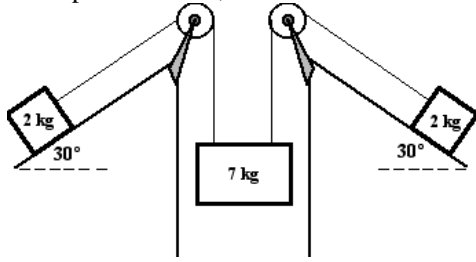
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Date: _____

Chapter 4: Force and the Law of Motion

4. In the picture below, if the coefficient of friction of both blocks is 0.35, what is the acceleration of the system?



5. If the system in number 4 is in equilibrium what is the coefficient of friction on each box?

6. In the picture below, solve for the acceleration of the system and each tension in each rope. The coefficient of kinetic friction is 0.8.

