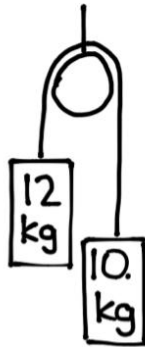


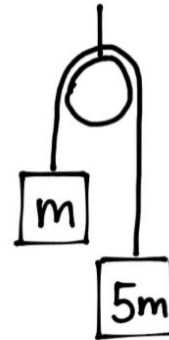
More Multibody Systems

1. Determine the acceleration of the system and the tension of each rope.

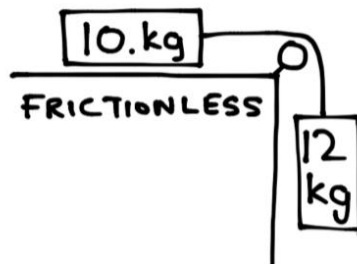
a)



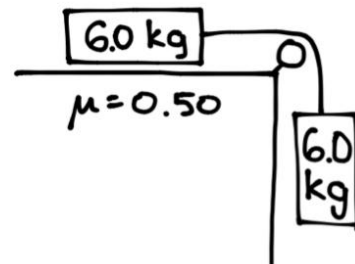
b)



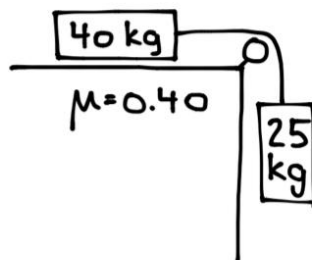
c)



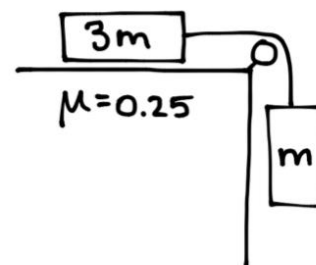
d)



e)



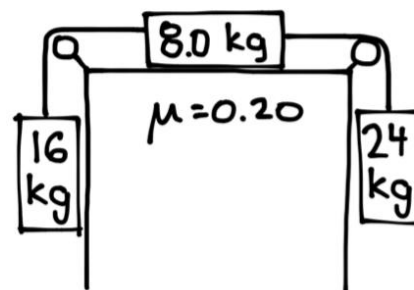
f)



g)



h)

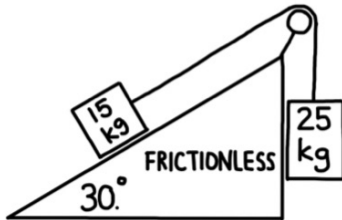


Answers:

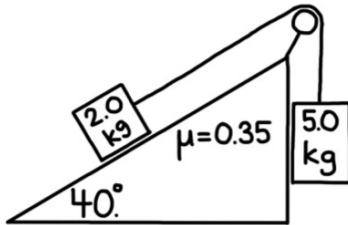
1

- a) 0.89m/s^2 left, 110N
- b) 6.5m/s^2 right, 16.3m N
- c) 5.3m/s^2 right, 53N
- d) 2.5m/s^2 right, 44N
- e) 1.4m/s^2 right, 210N
- f) 0.61m/s^2 right, 9.2m N
- g) 1.6m/s^2 left, 120N, 110N
- h) 1.3m/s^2 right, 200N, 180N

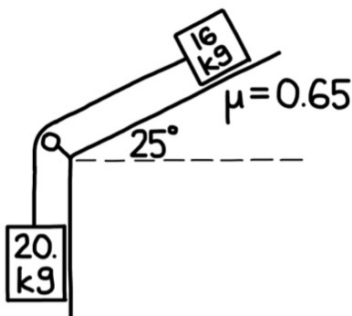
1. Determine the acceleration of the system and the tension of the rope.



2. Determine the acceleration of the system and the tension of the rope.



3. Determine the acceleration of the system and the tension of the rope.



Answers

1. 4.3m/s^2 right, 140N
2. 4.4m/s^2 right, 27N
3. 4.7m/s^2 left, 100N