

Mass and Weight

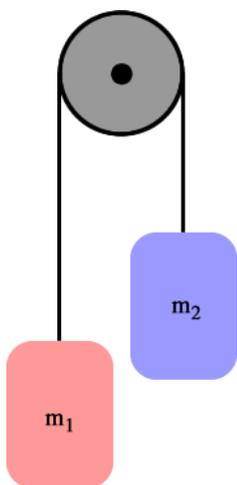
If you are given the mass, find the weight. If you are given the weight, find the mass.

18 kg	800 g	7 N	2000 N	0.4 kg	4 g	125 N

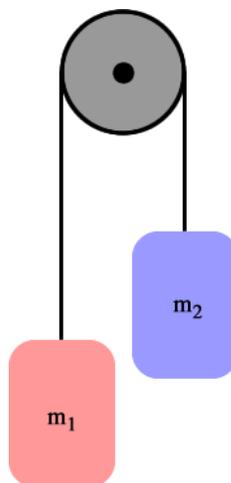
Atwood/Pulley

Find the missing values.

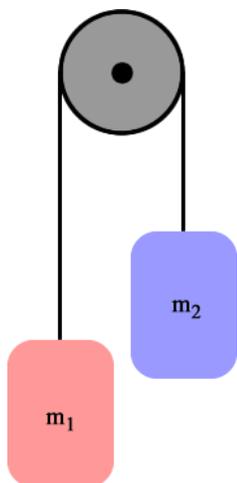
The mass of the red block is 8 kg and the mass of the blue block is 6 kg. Find the acceleration?



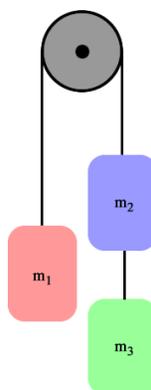
The blue block accelerates down at a rate of 2.5 m/s/s. If the red block has a mass of 7kg, what is the mass of the blue block?



The red is 8 kg and blue is 10 kg. Find the tension in the rope.



The red is 4 kg, the blue is 2 kg, and the green is 5 kg. Find the tension in the rope between the blue and green.



Elevators

Find the missing values.

If Mr. Torpe has a mass of 80 kg and the elevator accelerates down at 0.4 m/s^2 , what will the scale read?



If Mr. Torpe has a mass of 80 kg and the scale reads 900N, what is the elevator's acceleration?



If Mr. Torpe has a mass of 80 kg and the elevator moves upward with a constant velocity of 2.2 m/s . What will the scale read?



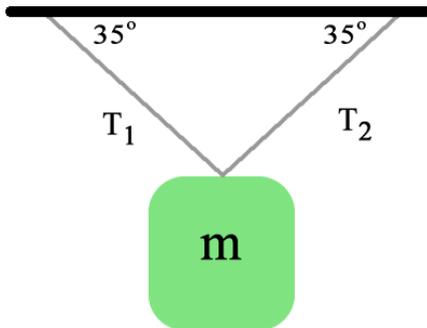
If Mr. Torpe has a mass of 80 kg and the scale reads 700N, what is the acceleration of the elevator?



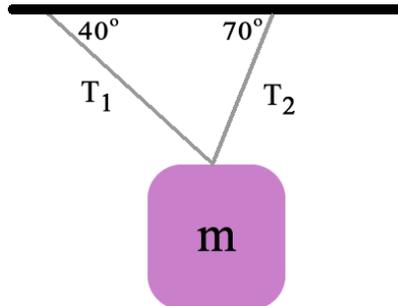
Hangers

Find the missing values.

The mass of the block is 60 kg. What is the tension in each cable?



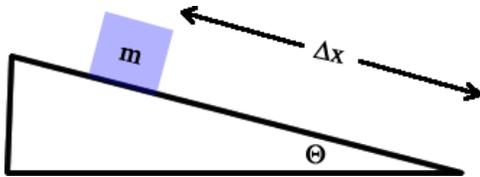
The mass of the block is 60 kg. What is the tension in each cable?



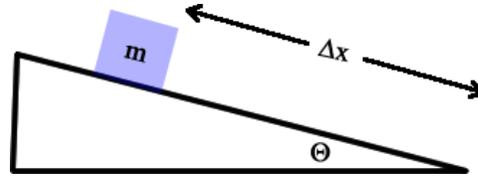
Ramps...No Friction

Find the missing values.

The angle of the ramp is 20° , find the minimum coefficient of friction that would prevent the block from sliding.

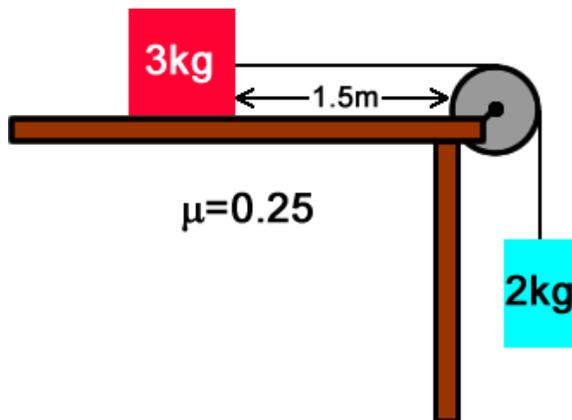


The angle of the ramp is 60° and the mass of the block is 8kg , find the time it would take to get to the end of the 2m long ramp. The coefficient of friction between the ramp and the box is 0.22 .



Atwood Part 3... Friction

- Find the time it would take for the 3kg box to hit the pulley.
- Find the tension in the cord.



- Determine the acceleration of the system.
- Determine the tension in the cord.

