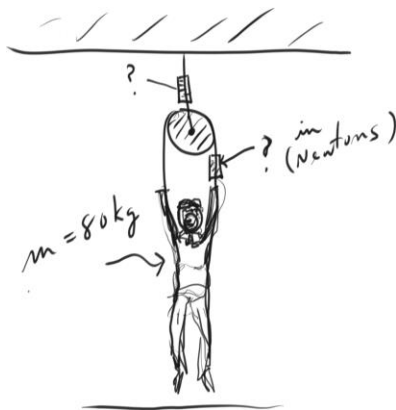


Newton's second law. Because this quiz set is so large, there might be two assigned quizzes on different days for it.

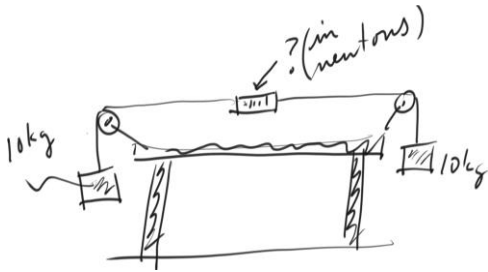
1. What keeps asteroids out in deep space (no gravity) moving at constant velocity?
2. What is wrong with this statement? Inertia is a force that keeps bodies moving at constant velocity.
3. When you tear a single sheet of paper from a paper towel roll with one hand only, why is it that tearing the sheet "quickly" makes it easier, or even possible, compared with other ways?
4. If a body is at rest, can it be correctly said that no forces are acting on it?
5. If a ship, always moving at constant non-zero velocity, has a ball at the top of its mast dislodge, where will the ball strike the deck of the ship below, behind the mast, in front of the mast, or right at the base of the mast?
6. Comparing being on the surface of the Moon to the surface of the Earth, for which surface would the weight of a body be larger? For which surface would its mass be larger?
7. Why does the weight of a body not make it accelerate faster in free fall?
8. Refer to the diagram. What do the two fish scales read?



9. Refer to the diagram. Find the tension in each rope.



10. What does the fish scale read?



11. What is the net force on a 10 N body when you hold it at rest above your head? What is the net force on it after you let go?

12. What is the net force on a 10 kg rock in free fall?

13. When a skydiver reaches terminal speed and then opens his parachute, what is the direction of his acceleration? There is air resistance here.

14. If a ball is thrown through the air straight up, will the trip time up be larger, smaller, or the same as the trip back down? There is air resistance here.