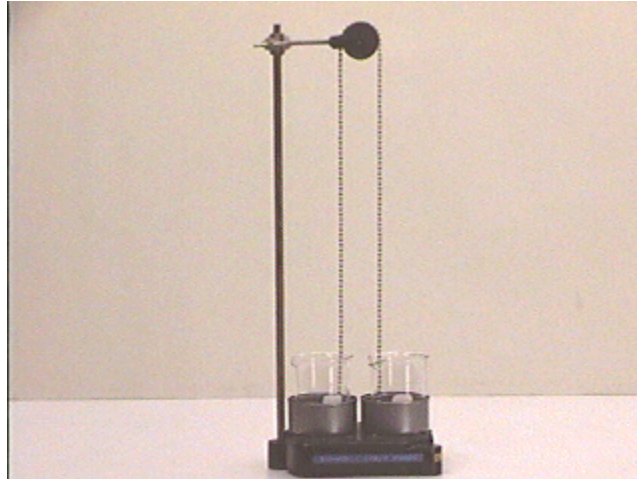


Answer #156

The answer is (a): the chain will move over the pulley from left to right, as seen in an mpeg video by clicking your mouse on the photograph below.



When a beaker is lifted, the weight of the chain on that side becomes less than the weight on the other side. Therefore the heavier side will pull the lighter side over the pulley.

This is a model of a siphon. When the container on one side of a water siphon at equilibrium is raised, the weight of that column of water is reduced, so the water will be pulled by the other (heavier) water column into the container on the other side. The result is that the water "seeks its own level."

So now that you understand how a siphon works, here is the test question. On the moon water does not remain very long due to the vacuum. However, mercury has a very low vapor pressure, so it will stay around for a longer time. Will a mercury siphon work on the moon?

We will have more questions regarding siphons in two weeks.

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For questions and comments regarding the *Question of the Week* contact [Dr. Richard E. Berg](#) by e-mail or using phone number or regular mail address given on the [Lecture-Demonstration Home Page](#).