Answer #175
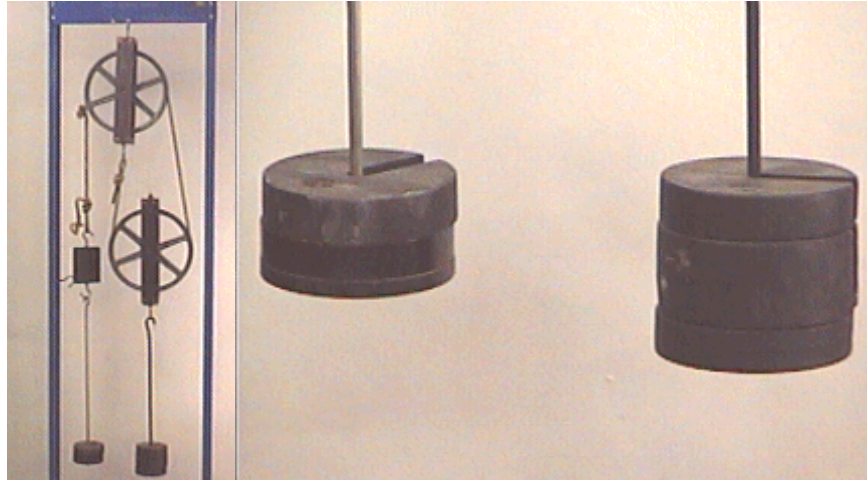
The answer is (c): the two-kilogram weight on the hook at the left exactly blances four kilograms of load on the moving pulley at the right. This is seen in the photograph at the left below and the detail of the weights at the right.

This system obeys the general law of pulleys: the weight that can be supported by the lifting force is proportional to the ratio of the number of ropes supporting the load to that for the lifting force. Here the ratio is two to one, as seen in the photograph.

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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.