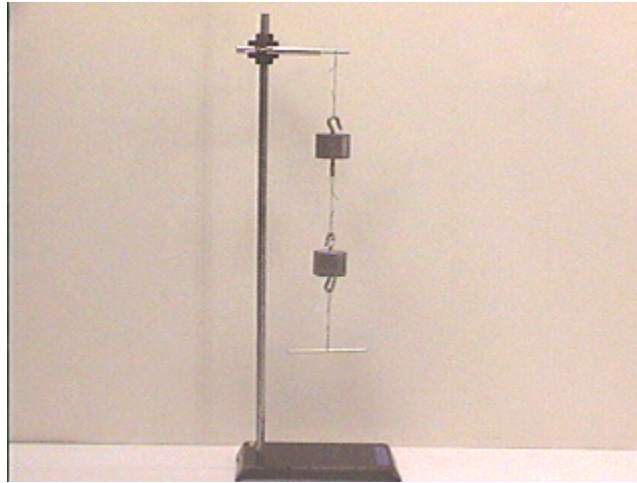


Question #42

Two identical masses are suspended from a fixed point using three identical strings, as seen in the photograph below. The top string, connected to the fixed support, holds the higher mass; the middle string connects the higher mass to the lower mass; and the lower string connects the lower mass to a metal rod that can be grasped in order to pull downward on the lower string.



When the rod is pulled downward, exerting a force on the lower string, which of the three strings will break?

The three possibilities are that, when the lower string is pulled downward:

- (a) the upper string will break.
- (b) the middle string will break.
- (c) the bottom string will break.

Click here for [Answer #42](#) after December 11, 2000.

[Question of the Week](#)

[Outreach Index Page](#)

[Lecture-Demonstration Home Page](#)



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](#).