Question #31

A mass is suspended by two identical springs, which are connected in series as shown in the photograph at the left below from a fixed point. Each spring has a parallel string loosely connected from the upper and lower ends to the center as shown in the photograph at the right.

The coupling clip between the two springs can be disconnected such that the mass will then be supported from the fixed point by two parallel spring-string units, one with the spring on top and the string on the bottom, the other with the string on the top and the spring on the bottom.

When the series spring support is disassembled so that the mass is supported by two series spring-string combinations, where will the mass be relative to its initial position as shown in the figure above?

- (a) The mass will be at a higher position.
- (b) The mass will be at a lower position.
- (c) The mass will be at the same vertical position.

Click here for Answer #31 after September 18, 2000.

Question of the Week

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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.