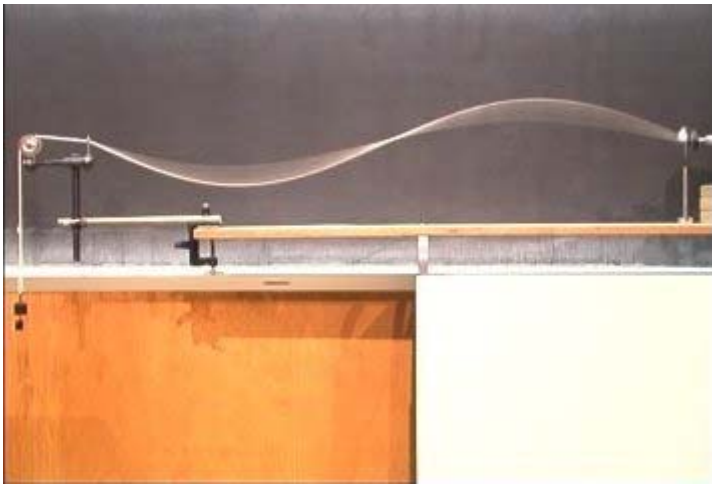
Question #263

This is a follow-up question to Question #262.

The rope wave generator in the photograph below consists of a rope attached at one end to a vibrator with the other end running over a pulley with 250 grams of weight attached. When the vibrator is activated, a two loop standing wave is produced, as shown in an mpeg video by clicking your mouse on the photograph.



Now suppose that you wish to create a three loop standing wave by changing ONLY the weight hanging on the end of the rope (from its original value of 250 grams). In the video clip, we are about to change the weight when the clip ends.

To create a three loop standing wave, how much weight must you hang on the end of the rope?

- (a) 62.5 grams.
- (b) 111 grams.
- (c) 125 grams.
- (d) 500 grams.
- (e) 750 grams
- (f) 1000 grams.

Click here for Answer #263 after November 13, 2006.

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.