Question #64

In the picture below, Gwen is holding one coffee filter in her left hand, at a height of one meter off the floor, and four coffee filters in her right hand. She looks a little bit perplexed because she is trying to figure out how high to hold her right hand so that when she releases the coffee filters in both hands at the same time they will reach the floor at the same time. She knows that they will reach their terminal velocities very quickly after they are released, and that the terminal velocity is proportional to the square root of the mass.

In order for both sets of coffee filters to reach the floor simultaneously Gwen must release the set of four filters in her right hand from a height of:

- (a) 1 meter.
- (b) 1.414 meters.
- (c) 1.5 meters.
- (d) 2 meters.
- (e) other.

Click here for Answer #64 after May 14, 2001.

Question of the Week

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For questions and comments regarding the *Question of the Week* contact
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given on the Lecture-Demonstration Home Page.