## **Question #279**

OTTO (remember him: Q#97, Q#99, Q#102, Q#105, Q#108, Q#114, Q#124) is standing in front of a small mirror, admiring himself, as seen in the photograph at the left below. Although he looks a bit scrawny to us, and his head seems a mite large, he is proud of himself. You can see the back of the mirror at the lower right corner of the photograph at the left above.



Looking in the mirror as OTTO does, it appears that he can only see from the top of his head to about his crotch, and being vain, he would like to see more of himself in the mirror. His left eye seems a bit large and black, but that is because we have put the camera there to photograph OTTO in the mirror as he would see himself. The photograph on the right shows what OTTO sees at a distance of two meters from the mirror; you can see the blue edges of the mirror frame.

The question this week is whether OTTO can see more of himself by moving further away from the mirror or closer to the mirror.

In order to see more of himself in the mirror, Otto must:

- (a) move closer to the mirror.
- (b) move further from the mirror.
- (c) either will work.
- (d) squint.
- (e) He cannot see more of himself in that size mirror.

By the way, is OTTO's image inverted top-to-bottom, left-to-right, front-to-back, or not inverted at all? (Refer to <u>Question #18</u>, <u>Question #19</u>, and <u>Question #168</u>.)

Click here for <u>Answer #279</u> after March 26, 2007.

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 <u>Lecture-Demonstration Home Page</u>.