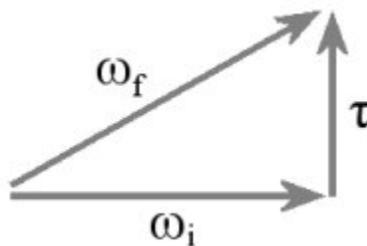


Answer #275

The answer is (c): the suitcase will rotate with its lower end moving to the right, as seen in an mpeg video by clicking your mouse on the photograph below.



Note that in this case the vector angular momentum originally points **outward** toward the camera. When you rotate the suitcase counterclockwise as viewed from above, you exert a vector torque in the **upward** direction. (Try it with a bicycle wheel gyroscope!) Therefore the angular momentum change must be in the upward direction, leading to a net angular momentum that is pointed to the right but slightly in the upward direction, as seen in the photograph and in the drawing below.



[Question #276](#) is a follow-up to this question.

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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](#).