Answer #306

The answer is: (d) > (a) = (b) = (c), in decreasing order of mass, which can be seen by inspection of the photographs below.
Because a floating object displaces its weight in water, the two floating cans displace their own weight in water and their weight is the same as that of the beaker containing only water. On the other hand, the can resting on the bottom displaces only its volume in water. Because its weight is greater than an equal volume of water, the scale reading will be greater for this case.
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.