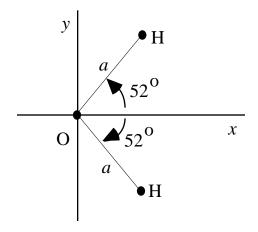
## **EXERCISE 1**

A model of the water molecule H<sub>2</sub>O is shown in MT Figure 9-B.



- **a.** Where is the center of mass? X = ? Y = ? Z = ?
- **b.** What is the moment of inertia about the x axis?  $I_x = ?$
- **c.** What is the moment of inertia about the y axis?  $I_y = ?$
- **d.** What is the moment of inertia about the z axis?  $I_z = ?$
- **e.** What is the moment of inertia about an axis that goes through the hydrogen atoms? I' = ?

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