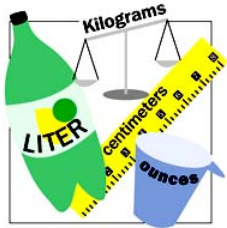


Measurement



Name: _____ #: _____

Subject: _____ Section: _____

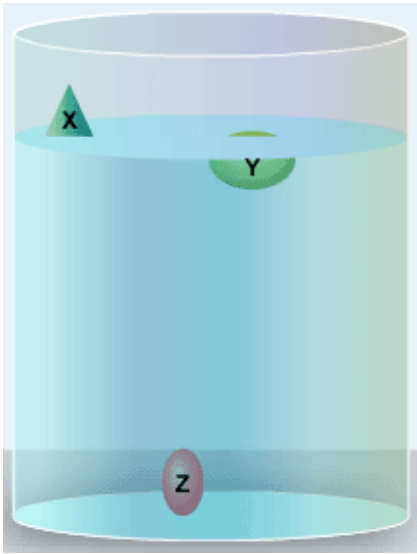
Date: _____ HR: _____

Explore Learning: Density Laboratory Gizmo

Object	Mass	Volume	Floats or Sinks?	Density
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Assessment Questions

1. Based on the diagram below, rank the three objects from least dense to most dense.



- A. Object X, object Z, object Y.
- B. Object Z, object Y, object X.
- C. Object X, object Y, object Z.
- D. Object Y, object Z, object X.

2. Fill in the blank: An object is most likely to sink in water if _____.

- A. it has a large mass
- B. it has a large volume
- C. it has a high density
- D. it has a low density

3. A ball has a mass of 33.6 grams and a volume of 14.0 cubic centimeters (cc). What is its density?

- A. 0.42 g/cc
- B. 2.4 g/cc
- C. 19.6 g/cc
- D. 470.4 g/cc

4. Three balls were measured and placed in a liquid. Based on the following data, what could be the density of the liquid?

Object	Float? (yes or no)	Mass	Volume
Ball X	No	25.0 g	24.0 cc
Ball Y	Yes	82.0 g	96.0 cc
Ball Z	No	14.2 g	14.8 cc

- A. 1.1 g/mL
- B. 1.0 g/mL
- C. 0.9 g/mL
- D. 0.8 g/mL

5. A whitewater rafter has successfully negotiated a particularly hairy set of rapids. Unfortunately, a sharp rock has ripped the fabric of the inflatable raft, and it starts to deflate and settle into the water. Why does the raft begin to sink?

- A. Its volume decreases as air leaves the raft.
- B. Its mass increases when the raft becomes filled with water.
- C. Both A and B.
- D. Neither A nor B.

6. "That's just the tip of the iceberg" is a popular expression you may have heard. It means that what you can see is only a small part of the overall problem. As the diagram shows, most of an iceberg is actually out of sight, below the water level. Based on this diagram, what is the most likely density of the iceberg? (Assume a density of 1.03 g/mL for seawater.)



- A. 0.88 g/cc
- B. 1.23 g/cc
- C. 0.23 g/cc
- D. 4.14 g/cc