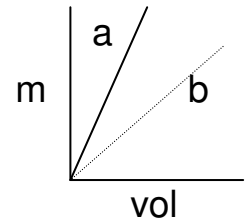


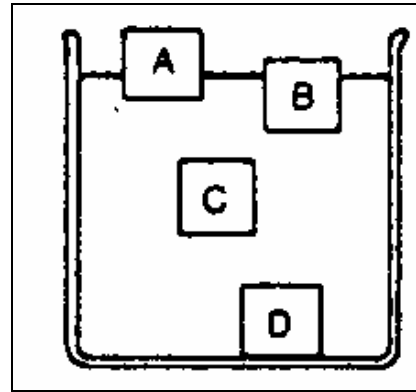
# DENSITY Worksheet

Name \_\_\_\_\_

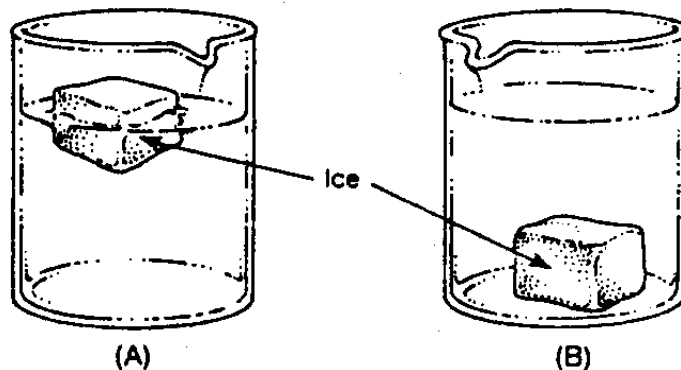
Directions: Answer The following questions.



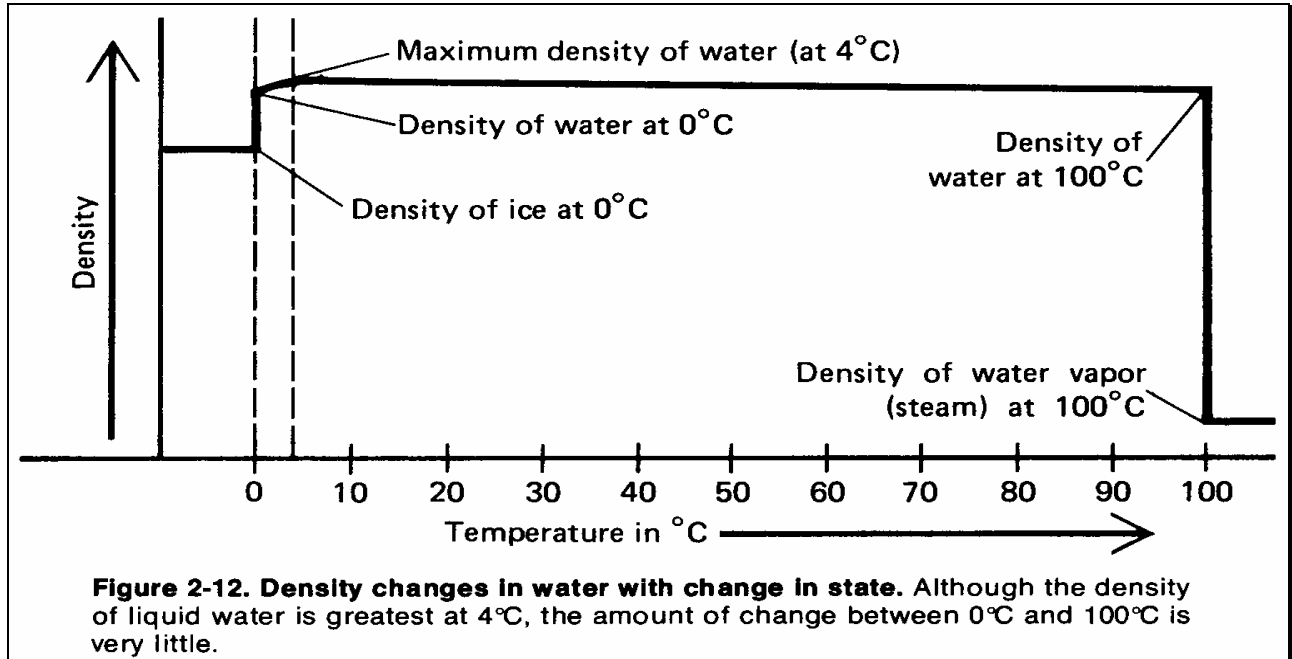
- In the diagram at right, which line, a or b, has a steeper slope? \_\_\_\_\_
- Which substance, a or b, is *least* dense? \_\_\_\_\_
- The density of an aluminum bar is  $2.7\text{g/cm}^3$ . If I cut the bar in half, what is the density of each half? \_\_\_\_\_
- This diagram shows a container of water with objects A, B, C and D. Which object, A, B, C or D, is most likely ice? \_\_\_\_\_
- Which object is more dense than water? \_\_\_\_\_ How do you know? \_\_\_\_\_
- Which is less dense than ice? \_\_\_\_\_
- Which has about the same density as water? \_\_\_\_\_
- Answer the question below in this space \_\_\_\_\_



The diagram below represents two beakers, each containing an ice cube and a clear liquid. In beaker A the ice cube floats, and in beaker B the ice cube rests on the bottom. What is the most probable cause for the difference in behavior of the ice cubes in the two beakers?



9. For most substances, the most dense state, or *phase* is ( solid / liquid / gas), and the least dense phase is ( solid / liquid / gas).
10. This diagram shows that water is densest in the ( solid / liquid / gas ) phase.
11. Water is densest at a temperature of \_\_\_\_\_ °C.
12. Ice floats because it is ( more / less ) dense than liquid water.
13. According to the diagram below, which is less dense, ice or water vapor? \_\_\_\_\_



14. Explain why the density of water in its various phases permits northern lakes to contain life.

---



---



---

15. As temperature increases, density \_\_\_\_\_.

16. In the graph, draw a line showing the effect of temperature on density.

17. As pressure increases, density \_\_\_\_\_.

18. In the margin below, draw a similar graph, showing the effect of pressure on density (don't forget to label the axes).

