Name _____ Date _____

Density and Relationships

1. A student varies the volume of several pieces of an unknown material and, for each piece, measures the mass. Her results are tabulated below:

   Graph this data on the grid below and use the graph to determine the density of this material. Show your work on all calculations.

   The graph must be complete to receive full credit.

| Mass (gram)	Volume (cm^3)
3	1.1
6	2.1
8	3.0
10	3.5
15	5.5
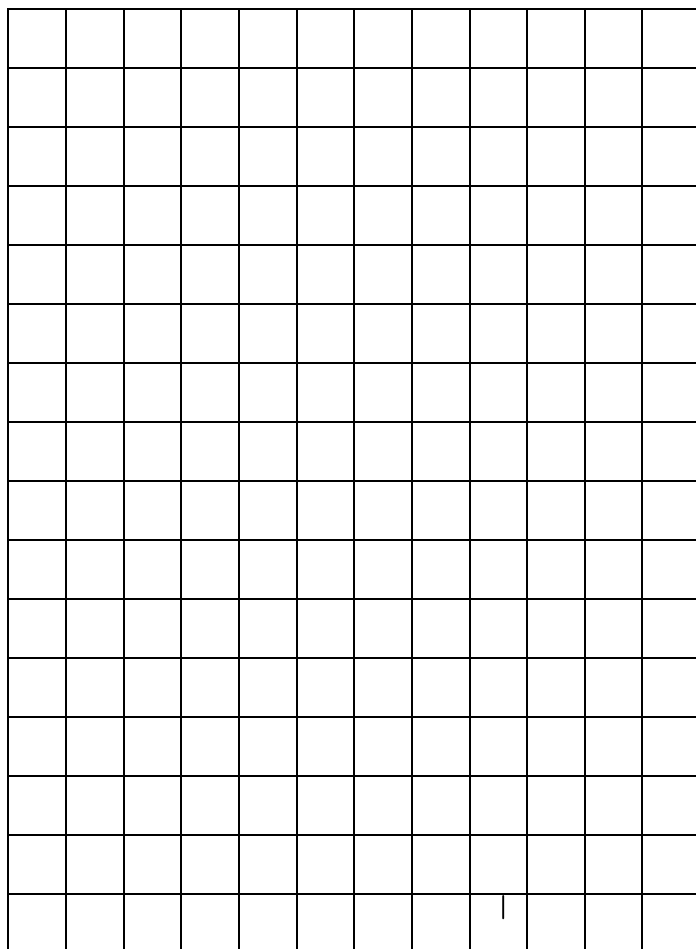
2. On the next page, are five containers of different shapes shown in a box. (For the drinking glass, the bottom section shown in black is solid glass.) To the right of the box are six graphs of height vs. volume.
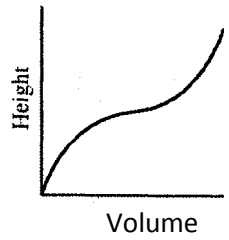
Under each graph, write the name of the container that fits each curve.

Drinking Glass   Ink Bottle

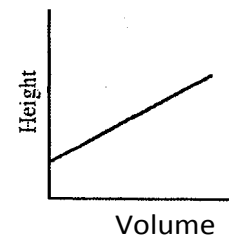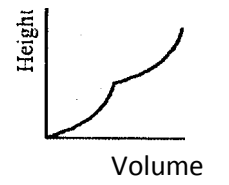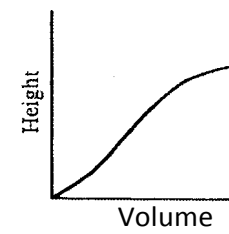Spherical Flask   Bucket

Vase
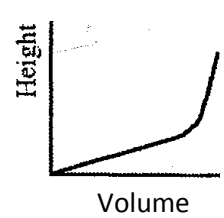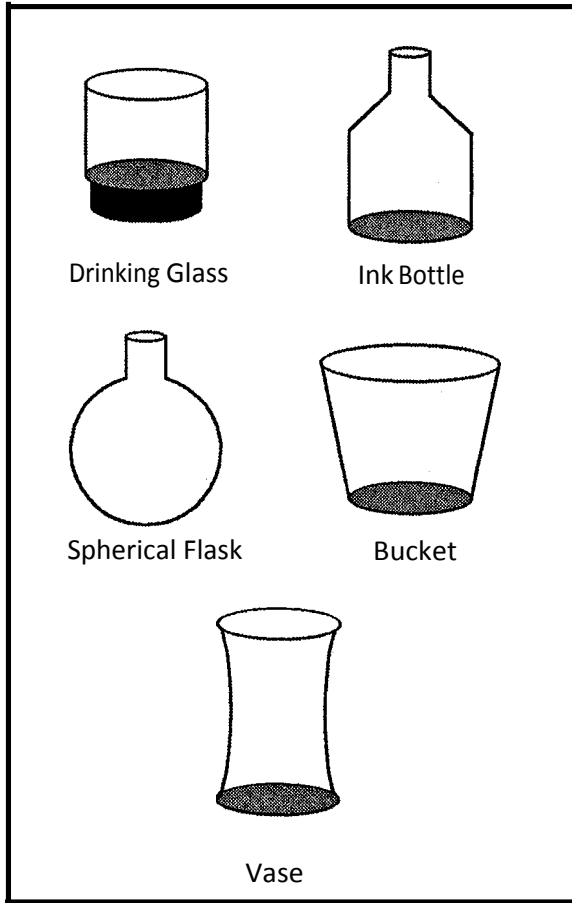
(A) _____
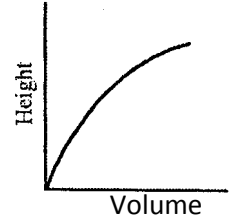
(B) _____

(C) _____

(D) _____

(E) _____

(F) _____

(G) For the remaining graph, sketch what you think the bottle looks like:

3. Put an "X" in the column that best matches the description on the left.

For this type of graph…	The container has a uniform diameter.	The container is getting narrower as it gets taller.	The container is getting wider as it gets taller.
A. The graph is a straight line.			
B. The slope of a graph is changing and becoming steeper.			
C. The slope of a graph is changing and becoming less and less steep			