Does Size Matter?

Problem: Amount you have of a substance affect that substance’s density

Hypothesis: __________________________________________________________
___________________________________________________________
______________________________________________________________

Materials:
1 Red Cube 1 Polyvinyl Chloride Cylinder
1 Red Rectangle 1 Polyvinyl Chloride Cube
1 Sponge Cube 1 10 ml graduated cylinder
1 Sponge Rectangle 1 25 ml graduated cylinder
1 Brass Cylinder 1 50 ml graduated cylinder
1 Brass Cube 1 metric ruler
1 Copper Cylinder water
1 Copper Cube
1 Polyvinyl Chloride Cylinder

Directions: Use the methods discussed in class to find the densities of the red cube and rectangle; the sponge cube and rectangle; and either the brass cylinder and cube, the copper cylinder and cube, or the polyvinyl chloride (PVC) cylinder and cube. Also find the density of water. Record your observations in the data table below.

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<tbody>
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<td>Water</td>
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<td>Red Cube</td>
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<td>Red Rectangle</td>
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<td>Sponge Cube</td>
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<td>Sponge Rectangle</td>
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<td>Option A</td>
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</table>
Show your work for how you calculated the volume and density of each of the samples (you only need to show one way that you calculated the density for each sample)

Red Cube 
Option A

Red Rectangle 
Option B

Sponge Cube 
Water

Sponge Rectangle

Conclusion Questions:
1a) Did the amount of the substance make a difference in its density?

1b) Using what you know about the formula for finding density, explain your answer for question 1. (Why do you think the amount of a substance did or did not affect its density?)

2a) Based on what you know about density, would any of these substances float in water?

2b) Why or why not?